



United States  
Department of  
Agriculture

Forest Service

Pacific Southwest  
Region

Preliminary 2016



# **2017 Motor Vehicle Use Map (MVUM) Update**

## **Environmental Assessment**

### **Tahoe National Forest**

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# 2017 Motor Vehicle Use Map (MVUM) Update

## Environmental Assessment

### Tahoe National Forest

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**Cooperating Agencies:** None

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**Abstract:** This Environmental Assessment (EA) describes a proposal to remove fixed seasonal closures on paved roads; remove fixed seasonal closures in the Burlington area using soil moisture, timing and weather conditions for road and trail closures; close road segments dead-ending on private lands; and close disconnected road segments on NFS lands. The EA discloses the direct, indirect and cumulative environmental effects that would result from the proposed action alternative and the no action alternative.

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**E-mail Comments to:** [comments-pacificsouthwest-tahoe-american-river@fs.fed.us](mailto:comments-pacificsouthwest-tahoe-american-river@fs.fed.us). [Subject: **MVUM 2017**]

**Comment Period:** The Forest Service will accept comments on this proposal and preliminary EA for 30 days following the publication of the Legal Notice in Grass Valley's *The Union* newspaper.

**Reviewer's Note:** It is important that reviewers provide their comments at such times and in such a way that they are useful to the Agency's preparation of the EA. Therefore, comments should be provided prior to the close of the comment period and should clearly articulate the reviewer's concerns and contentions. The submission of timely and specific comments can affect a reviewer's ability to participate in subsequent administrative review or judicial review. Comments received in response to this solicitation, including names and addresses of those who comment, will be part of the public record for this proposed action. Comments submitted anonymously will be accepted and considered; however, anonymous comments will not provide the respondent with standing to participate in subsequent administrative review or judicial review.



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- Map 6 – Truckee River Ranger District South Alternative 1
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# 1. Introduction

## 1.01 DOCUMENT STRUCTURE

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The Forest Service prepared this Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. This EA discloses the direct, indirect and cumulative environmental impacts that would result from the proposed action and alternatives. The document is organized into four parts:

- *Introduction:* The section includes information on the history of the project proposal, the purpose of and need for the project, and the agency's proposal for achieving that purpose and need. This section also details how the Forest Service informed the public of the proposal and how the public responded.
- *Comparison of Alternatives, including the Proposed Action:* This section provides a more detailed description of the agency's Proposed Action.
- *Environmental Consequences:* This section describes the environmental effects of implementing the proposed action and other alternatives. It also describes the factors of significance as described in *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (40 CFR Parts 1500-1508, section 1508.27, July 1, 1986).
- *Agencies and Persons Consulted:* This section provides a list of preparers and agencies consulted during the development of the environmental assessment.
- *References:* This section contains a list of the references referred to throughout the document.
- *Appendices:* The appendices provide more detailed information to support the analyses presented in the environmental assessment.
- *Map Package:* the separate map package includes large scale maps showing treatment units and other information included in each alternative.

Additional documentation, including detailed analyses of project area resources, may be found in the project planning record located at: Tahoe National Forest Supervisor's Office in Nevada City, CA.

## 1.02 BACKGROUND

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In September 2010, the Forest Supervisor signed the *Tahoe National Forest Motorized Travel Management Final Environmental Impact Statement Record of Decision* (MTM ROD, USDA FS 2010). This decision limits motor vehicle travel by the public to designated National Forest Transportation System (NFTS) roads, motorized trails, and areas (MTM ROD, pg. 2). The decision added specific routes to the NFTS as well as made some changes to the existing NFTS, including placing fixed wet weather seasonal closures on native surface roads (MTM ROD, pg.3). Based on the ROD, the Forest Service produced a Motor Vehicle Use Map (MVUM) for the Tahoe National Forest (TNF). The MVUM shows which NFTS roads and motorized trails are designated for wheeled motor vehicle travel by the public and identifies the allowed vehicle class and any seasonal or other use restrictions (MTM ROD, pg.18). In the years since the 2010 ROD was signed, the Forest Service has identified limited changes to the NFTS that would improve recreation and travel opportunities for the motoring public on the TNF as well as mitigate potential trespass on private lands. This EA discloses potential environmental impacts associated with these proposed changes, which are aimed at managing wheeled motor vehicle travel by the public on existing NFTS roads and trails; no construction, reconstruction, or decommissioning of roads or trails is proposed. The affected routes are dispersed throughout the TNF.

The 2017 Motor Vehicle Use Map Update (MVUM 2017) project boundary is located within portions of the American River, Sierraville, Truckee and Yuba River Ranger Districts on the Tahoe National Forest. The project area includes all National Forest System (NFS) lands within the Forest boundary. It does not include Wilderness or any private, state or other federal lands. Figure 1.02-1 shows the project location on the Tahoe National Forest.

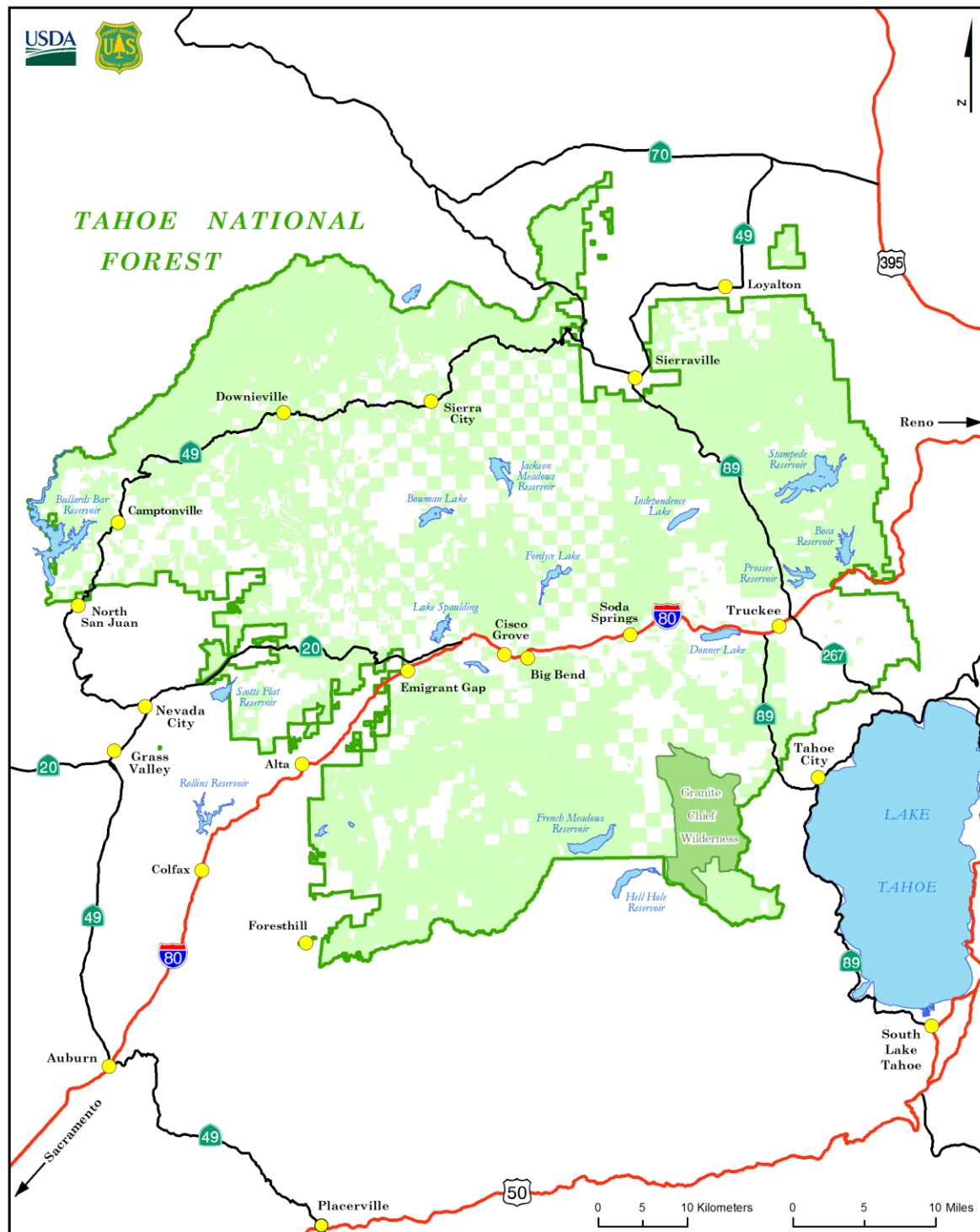


Figure 1.02-1 Tahoe Vicinity Map for the 2017 Motor Vehicle Use Map Update



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## 1.03 PURPOSE AND NEED

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The purpose of the project is to provide updated designation of public motor vehicle routes consistent with Forest Service Travel Management regulations at Title 36 CFR 212 Subpart B and the management of National Forest System (NFS) resources prescribed by the *Tahoe National Forest Land and Resource Management Plan* (Forest Plan, USDA FS 1990), as amended by the *Sierra Nevada Forest Plan Record of Decision* (SNFPA ROD 2004). Limited changes to the NFTS use designations for specific roads and motorized trails would facilitate consistency with Forest Plan Goals and Desired Future Conditions. Forest Plan Recreation Goal (1) is to “provide a broad spectrum of dispersed and developed recreation opportunities in accordance with identified needs and demands”; a Forest Plan desired condition for Recreation is that “OHV use will be provided for when such use is compatible with other resource programs and uses” (Forest Plan, p. V-5).

Changes to current use designations for specific NFTS roads and motorized trails are needed to:

- 1. Improve opportunities for public wheeled motor vehicle travel on existing NFTS roads and motorized trails when conditions provide for protection of natural resources.**

The 2010 Tahoe National Forest (TNF) Motorized Travel Management Project ROD (USDA FS 2010) established fixed seasonal closures, particularly aimed at native surface (unpaved) NFTS roads and motorized trails (MTM ROD, pg. 3). These fixed seasonal closures were developed to minimize the potential for soil erosion and stream sedimentation, mitigate impacts to terrestrial wildlife and aquatic species, and reduce costs of maintaining roads and trails (MTM ROD, pg. 11). Action is now needed to address two situations, described below, that have been brought to the Forest Service’s attention since the signing of the 2010 Tahoe National Forest’s MTM ROD.

Public motor vehicle users have voiced their desire to continue enjoying certain paved TNF roads all year, particularly when road closures are not needed to serve the intended purpose of preventing resource damage. If not for the current fixed seasonal closures on these paved roads, it would be possible for public motor vehicle users to travel these roads safely and without causing resource damage during periods of little or no snow accumulation. Additionally, some paved Forest roads get used as designated snow trails, based on snow being present on the road. There is a need to have a more flexible season of road use based on weather conditions to help coordinate management between the dual, but non-compatible uses of wheeled motorized vehicle and over-snow vehicle travel.

The Burlington area has one of the most popular NFTS road and motorized trail networks on the TNF. Native-surfaced roads and motorized trails, such as those within the Burlington area, are subject to seasonal closure to prevent resource damage from motorized vehicle use during wet weather conditions. The fixed season of use for NFTS roads and trails in the Burlington area under the Tahoe National Forest Motorized Travel Management Project ROD (USDA FS 2010) was based on predicted wet periods. However, local precipitation patterns can be quite variable, with recent winters having had extended dry periods and other years having wet weather earlier in the fall. During the planning process for the TNF Motorized Travel Management Project (2007 - 2010), the Off-Highway Vehicle (OHV) community urged the TNF to adopt a more flexible, soil moisture condition-based approach to determine when OHV trails should be opened or closed. However, the TNF did not have sufficient research and monitoring information available at the time to implement a condition based monitoring system to open and close roads or trails. The TNF now has the scientific research and the ability to implement condition based soil conditions monitoring, utilizing remote sensing technology, to open and close native surface roads and trails in the Burlington area.

## ***2. Mitigate trespass onto private lands from National Forest Transportation System (NFTS) roads.***

Several road segments currently in the NFTS and displayed on the MVUM show public road access that dead ends within private lands and enables trespass situations.

In the 1960's through the early 1990's the TNF actively acquired a large number of road right-of-ways (ROWs) across private lands. In most cases, these road ROWs traverse the entire parcels of private lands to National Forest System (NFS) lands on the other side of the private parcels. Roads that provide legal access through private lands to NFS lands are included in the NFTS and will continue to be displayed on the MVUM.

In other cases the road ROWs end on private lands and do not continue through to access NFS lands. These road ROWs were probably acquired with the intention that the TNF would eventually get road ROWs for public access in the name of the United States through the rest of the private lands and back onto the NFS lands. However, in the instances listed in Table 3 below, the TNF has not acquired road ROWs through the subject private lands and currently has no plans to do so.

As a result, the MVUM shows roads dead ending on private land. In some cases these roads physically dead end on private lands, while in other cases the roads continue but the public road ROWs end. In both cases the roads are displayed on MVUM as dead ending on the private land.

With approximately 30% of the land within the TNF boundary under private ownership, the Forest Supervisor recognized in the TNF MTM ROD (USDA FS 2010) that cooperation with the Forest's many intermixed landowners is paramount to the successful implementation of travel management (MTM ROD, pg. 15). As noted to the Forest Service by some private landowners, the MVUM displaying these roads ending on private lands may encourage trespass onto private lands beyond the end of the public road ROWs. There is no public right to camp, hike, hunt, fish or otherwise access these private parcels, except to drive the roads to the end of the ROWs, turn around and drive back on the same road. Sometimes these road ROWs end at a water source or lead to another attraction that encourages public trespass on private land.

## ***3. Ensure that roads open for public wheeled motor vehicle travel can be legally reached by the motoring public.***

Several road segments that are currently part of the National Forest Transportation System (NFTS) and displayed on the MVUM are isolated and unconnected to other open NFTS roads. Hence, there is no way for the public to legally travel to these isolated, unconnected sections using wheeled motor vehicles. These roads appear on the MVUM as "floating" road segments. In some cases, these floating road segments are disconnected from the NFTS due to a lack of a public right-of-way (ROW) across intervening private lands; therefore, the public is unable to legally travel to the floating road segments. In other cases, the floating segments are due to previous NEPA decisions to close roads that formerly connected the floating segments to the rest of the NFTS. Closing the floating road segments would eliminate confusion about these routes and provide the public with a connected system of roads on which to legally travel with wheeled motor vehicles. The MVUM would then provide the public with a clear depiction of connected legal wheeled motor vehicle travel opportunities on the TNF.

## 1.04 PROPOSED ACTION

This is the Proposed Action, as described in the Scoping with corrections based on updated data and map information. The scoping legal notice appeared in The Union newspaper in Grass Valley, Ca, on February 4, 2016. These corrections and refinements provide additional resource protection and a more accurate and informed proposed action.

The Forest Service proposed action includes the following:

- 1) Remove fixed seasonal closures (which currently do not allow wheeled motorized vehicles to travel from January 1 through March 31) for specific paved NFTS roads as follows:
  - (a) Remove fixed seasonal closures on approximately 0.9 miles of two paved NFTS roads. These roads would be open to public wheeled motor vehicle travel year round.
  - (b) Remove fixed seasonal closure dates that currently extend from January 1 through March 31 on approximately 46.6 miles of four paved NFTS roads that are dually designated as snow trails. These four paved roads would be “open to wheeled motorized vehicle travel by the public except when managed as a snow trail”.
- 2) Remove fixed wet weather seasonal closures from approximately 25 miles of NFTS roads and 45 miles of motorized trails in the Burlington area. The Forest Service would use soil moisture conditions, timing, and weather factors to determine when roads and motorized trails in the Burlington area would be closed.
- 3) Close approximately 3.3 miles of NFTS road segments dead ending on private lands to public wheeled motor vehicle travel.
- 4) Close approximately 4.6 miles of isolated, disconnected road segments on NFS lands that cannot currently be legally reached by public wheeled motor vehicle travel.

Chapter 2.02 includes a detailed description of this proposal under Alternative 1 (Proposed Action).

### Updates to the Proposed Action

The Forest Service updated the proposed action based on subsequent information and an ID Team review. The updated proposed action differs from the original scoping package (Scoping) as shown in Table 1.04-1 below. Several actions were dropped from the original scoped proposal. In addition, the text describes specific changes to NFTS motor vehicle use designations, which, if adopted, would then be reflected on the MVUM. The way the actions are displayed changed from the scoping package in order to more clearly identify the proposed actions and how they relate to the purposes for those actions.

Table 1.04-1 displays and compares the Proposed Action from Scoping with the updates identified for Alternative 1 (Proposed Action) in this EA.

Table 1.04-1 Updates to the Proposed Action

Proposed Action (Scoping)	Alternative 1 (Proposed Action)
Remove fixed season of use from 47 miles of paved roads; the roads would be closed by Forest Order during the wet season when snow accumulations reach 6 inches or more.	Remove fixed seasonal closure dates on approximately 48 miles of paved NFTS roads, of which approximately 47 miles are dually designated as snow trails. The four paved, dually designated roads would be designated as "open to public wheeled motorized vehicle travel except when managed as a snow trail". <sup>1</sup>
Remove fixed season of use restrictions from approximately 53 miles of roads and 39 miles of trails within the Burlington OHV Trail System. Determine seasonal closures based on soil moisture conditions.	Remove fixed wet weather seasonal closures on approximately 25 miles of roads and 45 miles of trails within the Burlington area. Determine when roads and motorized trails are open/closed based on soil moisture conditions, forecasted precipitation, and timing.
Add approximately 2.2 miles of existing Forest roads to the MVUM.	Dropped from the proposed action
Add approximately 2 miles of existing road to the MVUM on lands recently acquired by the TNF on the Truckee Ranger District.	Dropped from the proposed action
Remove from the MVUM approximately 3.3 miles of road segments dead ending on private lands.	Close approximately 3.3 miles of road segments that dead end on private lands to public wheeled motor vehicle travel.
Remove from the MVUM approximately 4.6 miles of isolated road segments on NFS lands which are not accessible for motor vehicle use by the public.	Close approximately 4.6 miles of isolated road segments on NFS lands to wheeled motor vehicle travel by the public. These isolated road segments cannot be legally reached by public wheeled motor vehicle travel.

<sup>1</sup> Snow trail refers to a designated over-snow vehicle route. An over-snow vehicle is a motor vehicle that is designed for use over snow and that runs on a track or tracks and/or a ski or skis, while in use over snow.

## 1.05 DECISION FRAMEWORK

As the Responsible Official, the Forest Supervisor may decide to: (1) select the proposed action; or (2) select the no action alternative, choosing not to authorize the MVUM 2017 project. In making this decision, the Forest Supervisor will consider such questions as:

- How well does the selected alternative meet the purpose and need described in this EA?
- How well does the selected alternative move the project area toward the desired conditions established in the Forest Plan?
- Does the selected alternative mitigate potential adverse effects?

In making motorized use designations to NFTS roads and trails, the Responsible Official considers criteria at Title 36 CFR 212.55, which includes effects on:

- natural and cultural resources,
- public safety,
- provision of recreational opportunities,
- access needs,
- conflicts among uses of NFS lands,
- the need for maintenance and administration of roads and trails that would arise if the uses under consideration are designated, and
- the availability of resources for that maintenance and administration.

Objectives for designating trails include:

- minimizing damage to soil, watershed, vegetation and other forest resources;
- minimizing harassment of wildlife and significant disruption of wildlife habitats;

- minimizing conflicts between motor vehicle use and existing or proposed recreational uses of NFS lands or neighboring Federal lands; and
- minimizing conflicts among different classes of motor vehicle uses of NFS lands or neighboring Federal lands.

In addition, in making use designations for trails, the Responsible Official considers compatibility of motor vehicle use with existing conditions in populated areas, taking into account sound, emissions and other factors.

When making changes to NFTS roads, the Responsible Official also considers:

- Speed, volume, composition and distribution of traffic on roads.
- Compatibility of vehicle class with road geometry and road surfacing.

In making use designations for roads and trails, the Responsible Official recognizes valid existing rights and the rights of use for NFTS roads and trails for those residing within the national forest as well as other areas administered by the Forest Service (36 CFR 212.55(d) and 212.6(b)).

The effects analyses for the alternatives presented in Chapter 3 of this EA address the applicable general and specific criteria for designation of roads and trails for this project. This analysis will inform the decision-making for this Project.

### **Project-Level Pre-decisional Administrative Review (Objection) Process**

This project is subject to comment pursuant to 36 CFR 218, Subparts A and B. Only those who submit timely project specific written comments<sup>1</sup> during a public comment period are eligible to file an objection. Individuals or representatives of an entity submitting comments must sign the comments or verify identity upon request. Comments received, including the names and addresses of those who comment, will be considered part of the public record on this proposal and will be available for public inspection.

## **1.06 PUBLIC INVOLVEMENT**

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Public participation is important at numerous points during the analysis. The Forest Service seeks information, comments and assistance from federal, state and local agencies and individuals or organizations that may be interested in or affected by the proposed action.

### **Public Scoping Period (30 days)**

The Forest Service conducts scoping according to the Council on Environmental Quality (CEQ) regulations (40 CFR 1501.7). In addition to other public involvement, scoping initiates an early and open process for determining the scope of issues to be addressed in the EA and for identifying the issues related to a proposed action.

The Forest Service first listed the MVUM 2017 project in the published quarterly Tahoe National Forest Schedule of Proposed Actions (SOPA) SOPA in January 2016. The Forest distributes a hardcopy of the quarterly SOPA to about 80 individuals and entities. The quarterly SOPA is available online at [www.fs.fed.us/sopa](http://www.fs.fed.us/sopa) or on the TNF website at <http://www.fs.fed.us/r5/tahoe>.

The Forest Supervisor sent a scoping letter and package to 39 individuals and entities potentially interested in this project on February 4, 2016. The letter requested specific written comments on the

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<sup>1</sup> **Specific written comments.** Written comments are those submitted to the responsible official or designee during a designated opportunity for public participation (§ 218.5(a)) provided for a proposed project. Written comments can include submission of transcriptions or other notes from oral statements or presentation. For the purposes of this rule, specific written comments should be within the scope of the proposed action, have a direct relationship to the proposed action, and must include supporting reasons for the responsible official to consider.

Proposed Action during the scoping period (which provided a 30-day designated opportunity for public participation). The Forest Service published a legal notice in Grass Valley's *The Union* newspaper (February 4, 2016), that asked for public comment on the proposal between February 4, 2016 and March 8, 2016. One letter (from Sierra Pacific Industries) was received during the scoping period (project record). The letter did not have any issues associated with the proposed project, but did give suggestions on how to implement actions.

## **1.07 ISSUES**

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The Forest reviewed the purpose and need, proposed action and scoping comments in order to identify issues (Scoping Summary, project record). An issue is a point of discussion, dispute, or debate with the Proposed Action; an issue is an effect on a physical, biological, social, or economic resource; an issue is not an activity; instead, the predicted effects of the activity create the issue.

Issues have a cause-effect relationship to the actions under consideration. An issue statement describes a specific action and the environmental effect(s) expected to result from that action. Cause-effect statements provide a way to understand and focus on the issues relevant to a particular decision. Issues serve to highlight effects or unintended consequences that may occur from the proposed action and alternatives, giving opportunities during the analysis to reduce adverse effects and compare trade-offs for the decision maker and public to understand. Issues are identified during scoping early in the process to help set the scope of the actions, alternatives, and effects to consider.

No issues were identified by the Forest Service based on public comments submitted during scoping. Therefore, no additional action alternatives were considered for detailed study.

## **1.08 GIS DATA**

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The Forest Service uses the most current and complete data available. Geographic Information System (GIS) data and product accuracy may vary. They may be developed from sources of differing accuracy, accurate only at certain scales, based on modeling or interpretation and/or, incomplete while being created or revised. Using GIS products for purposes other than those intended may yield inaccurate or misleading results. The Forest Service reserves the right to correct, update, modify, or replace GIS products without notification. The information contained within Chapter 2 (The Alternatives) of this EA takes precedence in case of disagreement with the GIS data (including maps created using that data).

## 2. The Alternatives

This Chapter describes and compares the alternatives considered for the MVUM 2017 project. It defines the differences between each alternative and provides a clear basis for choice among the options for the Responsible Official and the public. It includes the action alternative or the proposed action (Alternative 1), and the no action alternative (Alternative 2).

This chapter is divided into four sections:

- Chapter 2.01 describes how the alternatives were developed.
- Chapter 2.02 presents the alternatives considered in detail.
- Chapter 2.03 presents the alternatives considered, but eliminated from detailed study, including the rationale for eliminating them.
- Chapter 2.04 compares the alternatives.

### **Map Package**

The following detailed maps are available online at:

[http://www.fs.fed.us/nepa/nepa\\_project\\_exp.php?project=48411](http://www.fs.fed.us/nepa/nepa_project_exp.php?project=48411)

**Map 1 – American River Ranger District Alternative 1**

**Map 2 – Yuba River Ranger District South Alternative 1**

**Map 3 – Yuba River Ranger District North Alternative 1**

**Map 4 – Sierraville River Ranger District Alternative 1**

**Map 5 – Truckee River Ranger District North Alternative 1**

**Map 6 – Truckee River Ranger District South Alternative 1**

**Map 7 – Burlington Area Alternative 1**

### 2.01 HOW THE ALTERNATIVES WERE DEVELOPED

The project area includes NFS lands on the Tahoe National Forest outside of Wilderness and Inventoried Roadless Areas. It does not include any private, state or other federal lands. Chapter 2.02 displays the alternatives fully considered in detail including one action alternative and the no action alternative. The map package includes large scale maps showing roads, trails and other information included in the action alternative.

### 2.02 ALTERNATIVES CONSIDERED IN DETAIL

The action alternative (Alternative 1) and the no action alternative (Alternative 2) are considered in detail. The no action alternative, as required by the implementing regulations of NEPA, serves as a baseline for comparison among the alternatives (73 Federal Register 143, July 24, 2008; p. 43084-43099). The following sections describe each of the alternatives considered in detail. The map package and project record contains detailed maps of the action alternative.

#### **Alternative 1 (Proposed Action)**

This is the Proposed Action, as described in Chapter 1.04, with corrections as described in Chapter 1. Alternative 1 includes the treatments and actions described below and shown on Map 1, Map 2, Map 3, Map 4, Map 5, Map 6 and Map 7 (map package). All roads and trails addressed by this Proposed Action are outside of wilderness and inventoried roadless areas.

### 1) **Remove fixed seasonal closures on specific paved Forest roads.**

Remove fixed seasonal closures that currently prohibit wheeled motor vehicle travel by the public on approximately 0.9 miles of two paved NFTS roads as shown in Table 2.02-1 and on the project map, Appendix A-1. These roads would not be accessible by wheeled motor vehicles when Mosquito Ridge Road (0096) is managed as a snow trail.

Table 2.02-1 Remove fixed seasonal closures on 2 roads

Road	Miles	Existing Season of Use	Proposed Season of Use
NFSR 0016 (ARRD)	0.1	4/1 - 12/31	year-round
NFSR 0016-048 (ARRD)	0.8	4/1 - 12/31	year-round
<b>Total Miles</b>	<b>0.9</b>		

\* ARRD is American River Ranger District, YRRD is Yuba River Ranger District, TKD is Truckee Ranger District, and SVD is Sierraville Ranger District for all tables contained in this document.

Remove fixed seasonal closures (January 1 through March 31) to public wheeled motor vehicle travel on approximately 46.6 miles of four paved NFTS roads that are dually designated as snow trails. These four paved roads would be “open except when managed as a snow trail” as shown in Table 2.02-2 and on the project maps in Appendix A.

Table 2.02-2 Remove fixed seasonal closures on 4 roads to “open except when managed as a snow trail”

Road	Miles	Existing Season of Use	Proposed Season of Use
NFSR 0018-Bowman Road (YRRD Map A-2)	10.2	4/1-12/31	Open except when managed as a snow trail <sup>1</sup>
NFSR 0096-Mosquito Ridge Road (ARRD Map A-1)	19.7	4/1-12/31	Open except when managed as a snow trail
NFSR 0093 (YRRD Map A-3)	1.9	4/1-12/31	Open except when managed as a snow trail
NFSR 0007 (SVD Map A-4)	14.8	4/24-12/31	Open except when managed as a snow trail
<b>Total Miles</b>	<b>46.6</b>		

<sup>1</sup> Snow trail refers to a designated over-snow vehicle route. An over-snow vehicle is a motor vehicle that is designed for use over snow and that runs on a track or tracks and/or a ski or skis, while in use over snow.

### 2) **Remove fixed seasonal closure dates for public wheeled motor vehicle travel in the Burlington area. Open and close roads and motorized trails in the Burlington area to public wheeled motor vehicle travel based on factors established in the Burlington OHV Wet Weather Operating Plan, including soil moisture threshold, timing, and forecasted imminent precipitation.**

The Forest Service would determine when to open and close approximately 26 miles of NFTS roads and 44 miles of motorized trails in the Burlington area on Yuba River Ranger District using an efficient and science-based soil conditions monitoring program that relies on remote sensing technology. Wheeled motor vehicle travel by the public is currently allowed from April 1 to December 31 on the affected roads and motorized trails in this area. The proposed use of flexible road and trail closure/opening dates incorporates results from recent soil moisture condition remote sensing research and development projects (Monitoring Soil Conditions in OHV Parks, San Dimas Technology and Development Center [SDTDC], 2010, and Wet Weather Management of OHV Trails on National Forests in California, Poff 2014). Both studies included development, testing and analysis of the TNF’s Burlington OHV Trail System. The remote sensing technology system designed by SDTDC would be combined with the soil strength/soil moisture relationships and threshold determinations methodology detailed in Poff’s 2014 wet weather management study cited above to provide the information needed by managers to make open/closed determinations.



A remote soil monitoring station is located centrally within the Burlington OHV Trail System. It collects the following information, which is sent via cellular networks to a website:

- soil moisture (hourly)
- soil temperature (hourly)
- air temperature (hourly)
- precipitation (hourly)
- vehicle counts (hourly)
- collects pictures (every four hours during daylight)

These collected data would be reviewed and compared with a soil moisture threshold developed by the Forest Service based on the scientific studies cited above.

The soil moisture threshold level would be set at the point at which wheeled motor vehicle use results in optimal soil compaction. This threshold level would be several percentage points below the point at which soil deformation and/or rutting due to wheeled motor vehicle use on roads and motorized trails occurs. When soil moisture conditions are below the threshold level, wheeled motorized use either compacts or leaves little to no imprint in the road and trail surfaces, indicating that trails and roads could be open to wheeled motor vehicle travel by the public. Soil moisture levels at or above the threshold indicate the need to close roads and trails to public wheeled motor vehicle travel to avoid soil deformation and/or rutting.

Using collected monitoring data and observations each season, the Tahoe National Forest would develop and update, as needed, the Burlington Wet Weather OHV Operating Plan. The Operating Plan would establish the soil moisture threshold and other factors (for example, predicted precipitation levels) to be used by management personnel to determine when to open or close Burlington area roads and trails. The Operating Plan would contain guidance allowing managers to close motorized trails and roads based on the current soil moisture level (i.e. below, but near the threshold), timing, and forecasted imminent precipitation that would be expected to increase soil moisture levels above the threshold. In addition, the Operating Plan would provide managers the ability to keep specific motorized trails and roads closed due to persistence of snow drifts. If monitoring of roads and trails indicated that rutting was occurring under application of the soil moisture threshold established in the Burlington OHV Wet Weather Operating Plan, the threshold level would be adjusted. The Forest Service would use a programmatic forest order based on soil moisture condition threshold and other factors outlined in the Operating Plan to open and close roads and motorized trails in the Burlington area to public wheeled motor vehicle travel.

The affected routes are displayed on the project map, Appendix A-7, and listed below in Tables 2.02-3 and 2.02-4.

Table 2.02-3 Replace fixed seasonal closures with flexible closures on Burlington trails

Trail Number	Trail Name	Miles
10E05	Towle Mill Loop MC	9.3
10E25	Deer Creek	3.8
11E05	Omega MC	7.2
11E09	Stanton	2.3
11E06	Big Tunnel MC	1.2
11E28	Excelsior	9.7
11E54	Omega Overlook Tie MC	2.7
11E55	Diamond Spring MC	4.0
	Unnamed connector trails <sup>1</sup>	4.7
<b>Total Trails</b>		<b>44.9</b>

<sup>1</sup> Burlington Motorcycle Trail System Project Decision Notice and Finding of No Significant Impact, March 25, 2013

Table 2.02-4 Replace fixed seasonal closures with flexible closures based on Burlington roads

Road Number	Road Name	Miles
0029	Omega	0.1
0032	Chalk Bluff	2.2
0020-012	Burlington Ridge	3.4
0020-012-03	Towle Mill	1.9
0020-013	Burlington Fork	1.4
0020-015	Clarabeth	2.5
0020-016	Diamond Creek	2.9
0020-016-02	Last Road	3.1
0020-017	Excelsior Point	1.7
0029-002	Alpha	2.7
0032-004	Canal	1.0
0032-004-02	Canal Spur	0.4
0032-007	Deer Creek	2.1
<b>Total Road Miles</b>		<b>25.4</b>

The following management measures are included in the proposed action to mitigate potential adverse impacts to watershed resources in the Burlington area:

- The Burlington OHV Wet Weather Operating Plan would develop a soil moisture trigger (threshold) for when the trail system and adjacent roads should be closed. The Operating Plan should allow for road and trail closures to be implemented anticipatory to when imminent rainstorms are forecast that would raise the soil moisture level above the trigger; which then would close these roads and trails are prior to the surfaces becoming saturated.
- During the development of the plan, all of the roads and trails would be evaluated, and those areas which are more vulnerable to becoming saturated and/or damaged during wet weather motorized use, due to soil type, water flow from the road cutslopes or other factors, should either be hardened or closed in the winter and spring to avoid sediment delivery to streams.
- Inspect roads and trails with no fixed season of use annually for maintenance needs. Repair road drainage structures, such as drain dips and waterbars as needed. If road maintenance, especially road grading, is needed more frequently on these roads than in the past, either gravel the roads or revert to a season long closure during winter and spring to reduce the frequency of road maintenance.
- Sign roads and trails open or closed at central locations to inform the public.
- Monitor for compliance and enforce the wet weather closures

**3) Close 3.3 miles of 8 road segments dead ending on private lands to public wheeled motor vehicle travel.**

Closing 3.3 miles of eight road segments only deals with roads for which the Forest Service has ROWs that end within parcels of private lands. The intent is to close the dead-end portions of the ROWs on private land to public wheeled motor vehicle travel. Eight known road segments, totaling approximately 3.3 miles of roads, are shown in Table 2.02-5 below and the project maps in Appendix A.

Table 2.02-5 Close road segments dead ending on private lands to public wheeled motor vehicle travel

Segments of Roads Dead Ending on Private Lands	Miles	Gated	Current Maintenance Level	Proposed Action Maintenance Level
NFSR 0051 / NF Trail 16E04– (ARRD Map A-1)	0.4	No	ML 3	Non-motorized trail
NFSR 0044 – (ARRD Map A-1)	0.3	No	ML 3	ML 3
NFSR 9146-006 – (TKD Map A-6)	0.2	No	ML 2	ML 2
NFSR 0823-001 – (YRRD Map A-3)	0.2	No	ML 2	ML 2
NFSR 0098-008 – (YRRD Map A-3)	0.7	No	ML 2	ML 2
NFSR 0098-010-01 – (YRRD Map A-3)	0.7	No	ML 2	ML 2
NFSR 0200-32a – (YRRD Map A-2)	0.6	No	ML 2	ML 2
NFSR 0424-006-12-02 – (YRRD Map A-2)	0.3	No	ML 2	ML 2
<b>Total Miles</b>	<b>3.3</b>			

The routes listed above would be closed to public wheeled motor vehicle travel and not displayed on the MVUM. These routes would be available for administrative use by the Forest Service and use the current maintenance level; the sole exception to this is NFSR 0051.

NFSR 0051 serves as a portion of the route for the Tevis Cup Trail (NF Trail 16E04). The proposed action for this road segment is to close it to public and administrative wheeled motor vehicle travel, change its current use designation as an ML3 road to a non-motorized trail, and convert the road ROW into a trail easement for the Tevis Cup Trail. (Note that conversion of the road ROW to a trail easement would be a decision made by the Regional Forester.) The TNF proposes managing this section of trail for non-motorized use since the underlying landowner of Section 36, T16N, R14E and Section 29, T16N, 15E has indicated willingness to grant public non-motorized use across their lands for the remainder of the Tevis Cup trail (for which there is currently no public ROW); however, they are unwilling to grant additional motorized access across their lands for the Tevis Cup route.

There are two dead-end ROW situations, not included on the list above, where the TNF is attempting to acquire ROWs on existing roads (beyond where the ROW currently ends on private land) to access the NFS land beyond the parcels. These are NFS roads 0540-20 on the Sierraville Ranger District and 852-2 on the Yuba River Ranger District. The MVUM will continue to display these two dead end roads in the hopes that, in the near future, the TNF will be able to acquire motorized ROWs and make public motor vehicle connections back to NFS lands.

**4) Close 8 isolated or floating road segments that cannot currently be reached by authorized public wheeled motor vehicle travel.**

Close approximately 4.6 miles of roadway, where the parent road is not open to public motor vehicle travel, to public wheeled motor vehicle travel. These isolated road segments are on NFS lands and are shown on Table 2.02-6 and the project maps in Appendix A.

Table 2.02-6 Close isolated road segments to public wheeled motor vehicle travel

Isolated Road Segments on NFS lands	Miles	Proposed Action
NFSR 0019-005-01-01 (ARRD Map A-1)	0.8	Closed ML 2 road (administrative use allowed)
NFSR 0088-024-04 (ARRD Map A-1)	0.2	Closed ML 2 road (administrative use allowed)
NFSR 0033-058-06 (ARRD Map A-1)	0.7	Closed ML 2 road (administrative use allowed)
NFSR 0033-058-06-02 (ARRD Map A-1)	0.3	Closed ML 2 road (administrative use allowed)
NFSR 0033-045-02 (ARRD Map A-1)	1.2	Closed ML 2 road (administrative use allowed)
NFSR 0540-020-40-05-05 (SVD Map A-4)	0.3	Closed ML 2 road (administrative use allowed)
NFSR 0261-008-10 (TKD Map A-5)	0.5	Closed ML 1 road (no administrative use)
NFSR 0889-003-18-05-01 (TKD Map A-5)	0.6	Closed ML 1 road (no administrative use)
<b>Total Miles</b>	<b>4.6</b>	

## Alternative 2 (No Action)

Alternative 2 (No Action) provides a baseline for comparison with the action alternative. Under Alternative 2 the current management of the road system would continue. There would be no change in the fixed seasonal closures on the paved Forest roads. There would be no change in the fixed seasonal closures on Forest roads or motorized trails in the Burlington area. The road segments dead ending on private lands would remain open to public wheeled motorized vehicle travel and displayed on the MVUM. The floating road and trail segments would also remain open to wheeled motorized vehicle travel, although they could not be legally reached by routes shown on the MVUM. The Forest Supervisor would still have the authority to temporarily close roads, trails and areas early or extend closure through a Forest Order if necessitated by resource conditions.

## 2.03 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

No issues were identified during scoping that would lead to the development of additional alternatives.

## 2.04 COMPARISON OF ALTERNATIVES

Table 2.04-1 compares the proposed action alternative with the no action alternative in terms of the need for the project.

Table 2.04-1 Comparison of alternatives in terms of need for action

Need for Action	Proposed Action	No Action
Improve opportunities for wheeled motorized use by the public on existing NFTS roads and motorized trails when conditions provide for protection of natural resources.	Extends season of use on 2 paved roads (0.9 miles) and variable season of use on 4 paved roads (46.6 miles) based on snow condition. Replaces fixed date seasonal closures with flexible seasonal closures, based on soil moisture conditions, for roads and motorized trails in the Burlington area.	No change to existing seasonal closures (MTM ROD 2010)
Mitigate trespass onto private lands from National Forest Transportation System (NFTS) roads.	Closes approximately 3.3 miles of road segments dead ending on private lands to public wheeled motor vehicle travel by the public.	No change to existing use designations for 3.3 miles of roads dead ending on private lands. Roads remain open to public wheeled motor vehicle travel with associated trespass issues.
Ensure that roads open for public wheeled motor vehicle travel can be legally reached by the motoring public.	Closes approximately 4.6 miles of isolated, disconnected road segments on NFS lands that cannot currently be legally reached by public wheeled motor vehicle travel.	Isolated, disconnected road segments that cannot be legally reached by the public wheeled motor vehicle travel remain open and displayed on the MVUM.

Table 2.04-2 compares the proposed action alternative with the no action alternative in terms of environmental consequences.

Table 2.04-2 Comparison of alternatives in terms of environmental consequences

Resource	Alternative 1 Action 1	Alternative 1 Action 2	Alternative 1 Action 3	Alternative 1 Action 4	Alternative 2 No Action
Cultural Resources	No effect	No effect	No effect	No effect	No effect
Recreation: non-motorized	Improves opportunity	Improves opportunity	No effect	No effect	No effect
Recreation: motorized	Improves opportunity	Improves opportunity	No effect	No effect	No effect
Transportation Public Safety	Improves public safety	Improves public safety	No effect	No effect	Slightly less safe
Transportation Affordability	No effect	No effect	Slightly improves affordability	No effect	Slightly less affordable
Visual Resources	No effect	No effect	No effect	No effect	No effect
Watershed Resources	No effect	Reduces erosion with management requirements	Slight decrease of soil erosion and sediment delivery	No effect	No effect
Management Indicator Species	No effect	No effect	No effect	No effect	No effect
Migratory Landbirds	No effect	No effect	No effect	No effect	No effect
Sensitive Plants and Fungi	No effect	No effect	No effect	No effect	No effect
Wildlife: California spotted owl; Northern goshawk; Pacific marten; wolverine.	May affect individuals; not likely to result in a downward trend or lead toward federal listing.	May affect individuals; not likely to result in a downward trend or lead toward federal listing.	No effect	No effect	No effect
Wildlife: Valley elderberry longhorn beetle; Ca. red- legged frog; Sierra Nevada yellow-legged frog; Lahontan cutthroat trout; Western bumblebee; Bald eagle; Great gray owl; Willow flycatcher; Greater sandhill crane; Fisher; Sierra Nevada red fox; Pallid bat; Townsend's big-eared bat; Fringed myotis; Northwestern pond turtle; Foothill yellow-legged frog; Black juga; California floater; Great Basin Ramshorn snail; Lahontan Lake tui chub; hardhead.	No effect	No effect	No effect	No effect	No effect

## 3. Environmental Consequences

### 3.01 INTRODUCTION

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This section summarizes the physical, biological, social and economic environments of the affected project area and the potential changes to those environments due to implementation of the alternatives. It presents the scientific and analytical basis for comparison of alternatives presented in Chapter 2. It also describes the factors of significance as described in Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Parts 1500-1508, section 1508.27, July 1, 1986).

The TNF's Proposed Action would change decisions on roads to meet the intent of what was analyzed in the MTM FEIS and decided upon in the MTM ROD (USDA FS 2010). The Forest considered the criteria listed below in the original analysis. Seasons of use, established to protect Forest resources, remain unchanged. As noted in Chapter 1.05, Title 36 CFR 212.55 of the Travel Management Rule requires that designation (in this case redesignating seasonal closures and redesignating road segments by closing them to public wheeled motor vehicle travel) to NFTS roads and trails consider the following:

- natural and cultural resources,
- public safety,
- provision of recreational opportunities,
- access needs,
- the need for maintenance and administration of roads and trails that would arise if the uses under consideration are designated, and
- the availability of resources for that maintenance and administration.

When designating trails also include:

- minimizing damage to soil, watershed, vegetation and other forest resources;
- minimizing harassment of wildlife and significant disruption of wildlife habitats;

The following criteria were considered in the determination to include the road, trail or area into the NFTS and are not affected by the proposed removal of fixed season closures and closure of road segments to public wheeled motor vehicle travel as there will be no change in vehicle class allowable on a road, trail or area:

- conflicts among uses of NFS lands;
- minimizing conflicts between motor vehicle use and existing or proposed recreational uses of NFS lands or neighboring Federal lands;
- minimizing conflicts among different classes of motor vehicle uses of NFS lands or neighboring Federal lands;
- compatibility of motor vehicle use with existing conditions in populated areas, taking into account sound, emissions and other factors;
- speed, volume, composition and distribution of traffic on roads; and
- compatibility of vehicle class with road geometry and road surfacing.

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## 3.02 FONSI ELEMENTS

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### **1. Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect would be beneficial.**

In terms of context and intensity, the project has minimal effects as shown below for direct and indirect effects analysis for key resources. The project is a forest-wide project addressing the season of use for paved roads and for roads and trails in the Burlington area. In addition, the project addresses closure of roads dead ending on private lands and of isolated road segments to public wheeled motorized vehicle travel.

None of the impacts would be significantly beneficial or adverse as discussed under the cumulative effects analysis summarized under Factor 7 of this section. The magnitude of adverse effects resulting from implementation of the Proposed Action, and disclosed herein, have not been significantly offset or reduced by the beneficial effects of the proposed activities. Implementing the no action alternative would not meet the purpose and need to improve opportunities for public wheeled motorized travel when conditions provide for the protection of natural resources, to ensure that roads can be legally reached by the motoring public, and to mitigate trespass onto private lands.

#### ***Cultural Resources: Direct and Indirect Effects***

Implementing the proposed project activities would allow use of existing roads and trails; however there is no or little potential to cause effects to historic properties. Adhering to the provisions of the National Historic Preservation Act (NHPA) and implementing the 2013 Regional Programmatic Agreement (RPA) will ensure that there are no adverse impacts to cultural resources.

#### ***Recreation: Direct and Indirect Effects***

##### **ALTERNATIVE 1 - PROPOSED ACTION**

***Remove fixed seasonal closures on specific paved Forest roads.***

##### **Motorized access to non-motorized recreation activities**

Removing the seasonal use restrictions on 47.5 miles of paved NFTS routes will provide motor vehicle users the opportunity to reach multiple recreation destinations across the Forest during dry weather when those routes are not managed as snow trails. The paved routes being analyzed would provide opportunities for motor vehicle access to the French Meadows, Jackson Meadows and Grouse Ridge areas in the winter and spring months during years where limited winter precipitation occurs. During the driest winters, it could be possible for visitors to use motor vehicles to reach recreation destinations and opportunities for up to an additional 4 months annually compared to the existing seasonal closure conditions.

##### **Motor vehicle recreation opportunity**

The proposed action would provide managers flexibility in determining when a paved route converts from a motor vehicle route to a snow trail; thus allowing for maximum use of the route between motor vehicle users and winter sports enthusiasts. During periods of drought and minimal snow cover, motor vehicle users could be provided with the opportunity to access selected NFTS routes for as much as four additional months annually.

Additionally, the proposed action could serve to decrease the motor vehicle recreation opportunity in years of heavy fall, winter and/or spring snow. Eliminating the fixed season of use would preclude motor vehicles from driving on identified NFTS routes in fall and spring months when roads are managed as snow trails before the current December 31 closure and/or after the current April 1 (April 24 for NFS road 0007) opening.

***Remove fixed seasonal closure dates for public wheeled motor vehicle travel in the Burlington area. Open and close roads and motorized trails in the Burlington area to public wheeled motor vehicle travel based on factors established in the Burlington OHV Wet Weather Operating Plan.***

#### **Motorized access to non-motorized recreation activities**

Removing the seasonal use restrictions on 25 miles of NFTS roads and 45 miles of motorized trails in the Burlington area could provide motor vehicle users the opportunity to reach recreation destinations in the Burlington area in the winter during dry conditions. The routes being analyzed would provide opportunities for motor vehicle access during years where limited winter precipitation occurs and the routes remain open. During the driest winters, it could be possible for visitors to use motor vehicles to reach recreation destinations and opportunities for up to an additional 4 months (January 1 through March 31) annually compared to the existing conditions.

#### **Motor vehicle recreation opportunity**

The proposed action would provide managers flexibility in determining when to open and/or close NFTS roads and motorized trails in the Burlington area based on soil moisture measurements. This practice would provide OHV enthusiast the opportunity to maximize OHV opportunities when drier conditions permit. During periods of drought and minimal snow cover, motor vehicle and OHV users could be provided with the opportunity to access selected NFTS roads and motorized trails for as much as four additional months (January 1 through March 31) annually.

Additionally, the proposed action could serve to decrease the motor vehicle recreation opportunities in years of heavy fall, winter and/or spring precipitation. Removing the fixed season of use by using a remotely measured soil moisture based closure would preclude motor vehicles from driving on identified NFTS routes in the Burlington area when routes are saturated and closed to use, which would also better protect the routes from damage.

***Close 3.3 miles of 8 road segments dead ending on private lands to public wheeled motor vehicle travel.***

#### **Motorized access to non-motorized recreation activities**

The 3.3 miles NFTS routes being analyzed for closure do not access any Forest Service recreation destinations. The routes exist to access private lands and their closure to public wheeled motor vehicle travel would have no effect on opportunities for public non-motorized recreation activities. This proposed action would reduce the chances of the public trespassing on private lands involved; thus reducing the potential for conflict between recreationists and landowners.

#### **Motor vehicle recreation opportunity**

The proposed closure of 3.3 miles of NFTS routes that lead to or traverse private land inholdings would have no effect on motor vehicle recreation opportunities. The 3.3 miles of roads do not provide connectivity to other routes in the NFTS. This action would reduce the chances of the public trespassing on private lands involved; and reducing the potential for conflict between motor vehicle operators and landowners.

***Close 4.6 miles on 8 isolated or floating road segments that cannot currently be reached by authorized public wheeled motor vehicle travel.***

#### **Motorized access to non-motorized recreation activities**

The proposed closure of 4.6 miles of NFTS road segments where the parent routes are already closed to public wheeled motor vehicle travel would have no effect on opportunities for non-motorized recreation activities because the routes are already inaccessible to the public.



### **Motor vehicle recreation opportunity**

The proposed closure of 4.6 miles of NFTS road segments where the parent routes are already closed to public wheeled motor vehicle travel would have no effect on opportunities for motor vehicle recreation.

#### **ALTERNATIVE 2 - No ACTION**

This alternative would result in no short term or direct effects to recreation resources, access, or the quality of recreation experience within the project area. Existing patterns of motorized recreation would be expected to remain the same, and to increase in volume over time. Seasonal restrictions on motor vehicle use to protect natural resources would continue unchanged. The Tahoe NFTS routes open to public wheeled motor vehicle travel would remain unchanged.

### ***Transportation: Direct and Indirect Effects***

Changes in public safety and affordability are the primary potential effects of the proposed action.

#### **ALTERNATIVE 1 - PROPOSED ACTION**

##### ***Remove fixed seasonal closures on specific paved Forest roads.***

Action 1 would remove the season of use on two roads for a total of 0.9 miles from Mosquito Ridge road to allow year round access to the Big Trees Nature area. There is no existing closure gate or device to physically close the roads during the restricted use season. Removing the seasonal closure may encourage more use of the roads and the area during times when snow is not present. These roads would not be accessible to wheeled travel when Mosquito Ridge Road (NFSR 0096), the parent road, is managed as a snow trail.

Action 1 would also allow for an extended season of use on four paved roads for a total of 46.6 miles up until they have sufficient snow to be used as snow trails. The weather conditions would restrict use while snow is present which would reduce the risk of people getting stuck in snow drifts during periods when the road may have previously been open.

These routes receive periodic maintenance including the identification and remediation of known hazards. Removal of hazards such as fallen trees and rocks will continue to take place on these roads. Removing the fixed seasonal closures should have a positive effect on public safety by coordinating the use of wheeled vehicles and snow travel based on the suitable conditions. Action 1 would not increase maintenance requirements or costs on these roads for the removing the fixed seasonal closures.

##### ***Remove fixed seasonal closure dates for public wheeled motor vehicle travel in the Burlington area. Open and close roads and motorized trails in the Burlington area to public wheeled motor vehicle travel based on factors established in the Burlington OHV Wet Weather Operating Plan.***

Action 2 would base the season of use of the Burlington road and trail system on monitored soil moisture threshold, timing, and forecasted imminent precipitation. This would open the system when soil moisture data is within tested and acceptable ranges that reduce damage to the road and trail surface. Soil moisture will be tested and confirmed in the field to be at an acceptable range to prevent road damage. The result could reduce or lengthen the season of use on the OHV system. Opening trails and roads only when moisture levels are within a tested and acceptable range will reduce hazards to the public by restricting use when soil moisture levels drastically reduce the strength of the trail and road prisms causing slipping and skidding.

Action 2 would restrict use based on soil moisture levels rather than a fixed season of use. Damage could occur prior to proper calibration of the remote field monitoring device; however, field testing and monitoring would minimize damage to the roads. This action would help to keep traffic off the roads and trails when they are too wet and help prevent damage to the road and trail surface. This

action would not affect the cost of road repairs.

***Close 3.3 miles of 8 road segments dead ending on private lands to public wheeled motor vehicle travel.***

Action 3 would close 3.3 miles of 8 road segments to public wheeled motor vehicle travel on right of ways within the private land that are not through routes. With the exception of the NFTS road 51, which would be maintained as a trail, normal maintenance would continue on these routes to protect the transportation resource since they would remain as part of the NFTS. Public safety would not be affected by this action. Costs would minimally be reduced with this short trail conversion as trail maintenance costs are less than road maintenance costs.

***Close 4.6 miles on 8 isolated or floating road segments that cannot currently be reached by authorized public wheeled motor vehicle travel.***

Action 4 would close roads and remove them from the MVUM. Since there is no current legal access to these roads, closing them to the public would not affect public safety or maintenance costs.

**ALTERNATIVE 2 - NO ACTION**

The no action alternative is slightly less affordable and less safe to public than the Alternative 1.

***Visual Resources: Direct and Indirect Effects***

The actions would cause no change in effects for visual resources as existing NFTS roads, with road template, are already in place. Changing the road use or season of use would have no effect on scenery. The proposed action would have very little to no impact to the visual resource and would meet the visual resource standards and guidelines outlined in the Forest Plan. The proposed action meets the VQOs where the actions are located as viewed from the travel routes identified as key viewsheds for this analysis and would not be affected.

***Watershed Resources: Direct and Indirect Effects***

**ALTERNATIVE 1 - PROPOSED ACTION**

Changes in sediment delivery to nearby streams is the primary potential effect of the proposed action. Roads are a major source of sediment on in forested areas, with potential delivery to nearby streams increasing with proximity to streams (MacDonald and Coe, 2008).

***Remove fixed seasonal closures on specific paved Forest roads.***

This change in road management is expected to not have any direct or indirect effects to soil or water resources. The paved surface of the road is not subject to soil erosion. Using these roads during dry and wet periods in the fall and spring when there is not sufficient snow for a snow trail is not expected to change soil erosion, runoff of sediment delivery to nearby streams.

***Remove fixed seasonal closure dates for public wheeled motor vehicle travel in the Burlington area. Open and close roads and motorized trails in the Burlington area to public wheeled motor vehicle travel based on factors established in the Burlington OHV Wet Weather Operating Plan.***

Forest roads and motorized trails are often closed during winter and spring as travel on forest roads, especially on native surface roads, can break down drainage features, such as drain dips. Rutting can also occur with very little use if the travelway surface is saturated. The ruts concentrate runoff and erode the road surface. Sediment production is variable and depends upon the surface area of the road or trail. For this reason, the majority of the potential effects would result from changing the season of use.

These roads and trails would be opened and closed based on the soil sensors and precipitation gauges installed for the Burlington OHV trail system instead of a fixed season of use. The sensor is located in the Chalk Bluff Road area near the Burlington OHV trails. Some of the roads are in this area, others

are as far as three miles away and over 1000 difference in elevation from some the roads that will be managed with this precipitation and soil moisture based system.

Forest roads are a major source of sediment in forested areas. A study on roads in the Sierra Nevada found that native surface roads produce 10 to 50 times as much sediment than graveled roads (MacDonald and Coe, 2008). Of the 25.5 miles of roads to be managed by this system, the Chalk Bluff road, the first mile of the Alpha Road and portions of the Excelsior Point Road are graveled, a total of about 3 miles of road. The other 22 miles of road are native surfaced roads.

Road grading can increase sediment production by 70% or more due to the newly disturbed soil on the road surface. Sediment rates decline quickly within a few years (MacDonald and Coe 2008).

Sediment delivery from roads and trails are highest at stream crosses and decreases with distance from stream channels. However concentrated runoff from roads can travel downslope long distances if a channel has been eroded below the road (MacDonald and Coe, 2008). Of the native surface roads, approximately 3.3 miles are located within Riparian Conservation Areas (RCAs) along stream channels, 10 miles of trails are located with RCAs, which include multiple stream crossings of both roads and trails.

To decrease sediment delivery from these roads, the management requirements listed in Chapter 2.02 were developed to ensure that sediment delivery did not increase as a result of this change in management. These requirements should reduce the amount of time these roads and trails are used during wet weather as compared to the current fixed season of use, especially during fall rainstorms. Under these management requirements, use should primarily occur during dry periods which would reduce road and trail erosion and sediment delivery to the headwaters of Deer Creek and Steephollow Creek.

***Close 3.3 miles of 8 road segments dead ending on private lands to public wheeled motor vehicle travel.***

By taking these road segments off of the MVUM, the number of vehicles traveling these roads may decrease. As these segments access private land, these roads will still have some level of use. This action may slightly decrease soil erosion and sediment delivery due to the reduced level of use, however it would likely be a very minor change.

NRSR 0051 would be converted into a non-motorized trail. This will reduce the road footprint as well eliminate motorized use on this road segment. Both soil erosion and sediment delivery to nearby streams would decrease as a result.

***Close 4.6 miles on 8 isolated or floating road segments that cannot currently be reached by authorized public wheeled motor vehicle travel.***

By taking these road segments off of the MVUM, the number of vehicles traveling these roads may decrease. As these segments did not appear to be connected to other roads on the MVUM map, they likely received only limited use in the past. This action may slightly decrease soil erosion and sediment delivery due to the reduced level of use, however it would likely be a very minor change. Six of these eight roads would still have administrative use.

**ALTERNATIVE 2 - NO ACTION**

Under the No Action Alternative, roads and the levels of traffic are expected to remain similar to current conditions. Road surface erosion and sediment deliver to nearby streams would remain at similar levels.

In the Burlington area, as well as across the Forest, if a rainstorm occurs before the January 1 road closure date or in late spring, the roads would be open unless the Forest puts a closure Order into place, which takes several days to a week to finalize. Under these circumstances, forest roads would be getting traffic, which would affect the road surface and drain dips. Travel on forest roads during these wet periods would have had the potential to increase sediment delivery to nearby streams.

### Management Indicator Species: Direct and Indirect Effects

Management Indicator Species (MIS) for the Tahoe NF are identified in the 2007 Sierra Nevada Forests Management Indicator Species (SNF MIS) Amendment (USDA Forest Service 2007a). The habitats and ecosystem components and associated MIS analyzed for the project were selected from this list of MIS, as indicated in Table 1. In addition to identifying the habitat or ecosystem components (1st column), the CWHR type(s) defining each habitat/ecosystem component (2nd column), and the associated MIS (3rd column), the Table discloses whether or not the habitat of the MIS is potentially affected by the Tahoe NF 2017 Motor Vehicle Use Map Project (4th column).

Table 1. Selection of MIS for Project-Level Habitat Analysis for the 2017 Motor Vehicle Use Map Update Project.

Habitat or Ecosystem Component	CWHR Type(s) defining the habitat or ecosystem component <sup>1</sup>	Sierra Nevada Forests Management Indicator Species <i>Scientific Name</i>	Category for Project Analysis <sup>2</sup>
Riverine & Lacustrine	lacustrine (LAC) and riverine (RIV)	aquatic macroinvertebrates	2
Shrubland (west-slope chaparral types)	montane chaparral (MCP), mixed chaparral (MCH), chamise-redshank chaparral (CRC)	fox sparrow ( <i>Passerella iliaca</i> )	2
Sagebrush	Sagebrush (SGB)	greater sage-grouse ( <i>Centrocercus urophasianus</i> )	1
Oak-associated Hardwood & Hardwood/conifer	montane hardwood (MHW), montane hardwood-conifer (MHC)	mule deer ( <i>Odocoileus hemionus</i> )	2
Riparian	montane riparian (MRI), valley foothill riparian (VRI)	yellow warbler ( <i>Dendroica petechial</i> )	2
Wet Meadow	Wet meadow (WTM), freshwater emergent wetland (FEW)	Pacific chorus frog ( <i>Pseudacris regilla</i> )	2
Early Seral Coniferous Forest	ponderosa pine (PPN), Sierran mixed conifer (SMC), white fir (WFR), red fir (RFR), eastside pine (EPN), tree sizes 1, 2, and 3, all canopy closures	Mountain quail ( <i>Oreortyx pictus</i> )	2
Mid Seral Coniferous Forest	ponderosa pine (PPN), Sierran mixed conifer (SMC), white fir (WFR), red fir (RFR), eastside pine (EPN), tree size 4, all canopy closures	Mountain quail ( <i>Oreortyx pictus</i> )	2
Late Seral Open Canopy Coniferous Forest	ponderosa pine (PPN), Sierran mixed conifer (SMC), white fir (WFR), red fir (RFR), eastside pine (EPN), tree size 5, canopy closures S and P	Sooty (blue) grouse ( <i>Dendragapus obscurus</i> )	2
Late Seral Closed Canopy Coniferous Forest	ponderosa pine (PPN), Sierran mixed conifer (SMC), white fir (WFR), red fir (RFR), tree size 5 (canopy closures M and D), and tree size 6.	California spotted owl ( <i>Strix occidentalis occidentalis</i> ); Pacific marten ( <i>Martes caurina</i> ); Northern flying squirrel ( <i>Glaucomys sabrinus</i> )	2
Snags in Green Forest	Medium and large snags in green forest	hairy woodpecker ( <i>Picoides villosus</i> )	2
Snags in Burned Forest	Medium and large snags in burned forest (stand-replacing fire)	black-backed woodpecker ( <i>Picoides arcticus</i> )	1

<sup>1</sup> All CWHR size classes and canopy closures are included unless otherwise specified; dbh = diameter at breast height; Canopy Closure classifications: S=Sparse Cover (10-24% canopy closure); P= Open cover (25-39% canopy closure); M= Moderate cover (40-59% canopy closure); D= Dense cover (60-100% canopy closure); Tree size classes: 1 (Seedling)<1" dbh); 2 (Sapling)(1"-5.9" dbh); 3

(Pole)(6"-10.9" dbh); 4 (Small tree)(11"-23.9" dbh); 5 (Medium/Large tree)(>24" dbh); 6 (Multi-layered Tree) [In PPN and SMC] (Mayer and Laudenslayer 1988).

<sup>2</sup> Category 1: MIS whose habitat is not in or adjacent to the project area and would not be affected by the project.

Category 2: MIS whose habitat is in or adjacent to project area, but would not be either directly or indirectly affected by the project.

### **ALTERNATIVE 1 - PROPOSED ACTION**

#### ***Category 1 species***

Black-backed woodpecker - Since this project does not include burned snag habitat, the black-backed woodpecker will not be discussed further.

Sage grouse – Since the Tahoe NF is outside the known distribution for the sage grouse, this species will not be discussed further.

#### ***Category 2 species***

Category 2 species will not be affected by the 2017 MVUM Update Project since no changes to MIS habitats would occur with implementation of the proposed action. Changing the season of use restriction or closing short road segments unavailable to the public constitutes administrative actions and would not result in any changes to MIS habitat for the following Category 2 species: aquatic macroinvertebrates, fox sparrow, mule deer, yellow warbler, Pacific chorus frog, mountain quail, Sooty (blue) grouse, California spotted owl, Pacific marten, and northern flying squirrel. These Category 2 species will not be discussed further.

#### ***Category 3 species***

None of the MIS on the Tahoe NF are identified as Category 3 in Table 1, and therefore, will not be analyzed in detail.

### **ALTERNATIVE 2 - NO ACTION**

Category 1, 2, and 3 species will not be affected since no changes to MIS habitats would occur with implementation of the no action.

#### ***Migratory Landbirds: Direct and Indirect Effects***

Likely effects to habitats and select migratory bird populations resulting from the Proposed Action and No Action alternatives of the Tahoe NF 2017 MVUM Update Project have been assessed in the project Management Indicator Species (MIS) Report (USDA 2016b) and impacts to select Forest Service designated sensitive birds and their habitats have been analyzed in the Terrestrial Species Biological Evaluation/Biological Assessment (USDA 2016a).

### **ALTERNATIVE 1 - PROPOSED ACTION**

Implementation of the proposed action would remove the seasonal use restriction on selected NFTS roads and trails. It is not expected that motorized use during December 31 to April 1 would cause significant disturbance or disruption of migratory birds during this period. Some minor disturbance to migratory birds during the breeding initiation period (spring) that are adjacent to roads and trails may occur, particularly in the Burlington OHV area.

Migratory landbirds could potentially experience short-term increase in disturbance from motorized vehicle related noise on roads where the fixed season designation is removed from specific NFTS roads and trails, particularly during drought years when road conditions are dry. However, vehicle disturbance to migratory birds could potentially be reduced by implementing soil monitoring requirements and closing roads and trails in the Burlington OHV area based on actual wet weather conditions. During years with average precipitation and when snow accumulation exists, the roads would be closed for wet weather conditions. Implementation of the proposed action has the potential to displace individual birds from the vicinity of proposed roads/trails with removed fixed season of use, however, because these routes are already used in the spring and summer, it is expected that the

direct effects will likely be minimal in scope (December 31 to April 1) along specific roads and trails. (i.e. Burlington OHV system).

Closing short segments of NFTS roads to public use that dead end on private land or are currently unavailable to the public and are expected to have limited and minor beneficial impacts to migratory birds by reducing potential disturbance from motorized use, since these roads are currently unavailable to public use. These roads would be open to administrative use and would be occasional, and therefore, would not constitute a major disturbance to migratory birds.

Indirect effects to migratory landbirds may occur from altering the quantity or quality of habitat; however, the proposed action would not alter migratory landbird habitat within the project area and indirect effects to migratory landbirds would not occur.

#### **ALTERNATIVE 2 - NO ACTION**

The no action alternative would generally not have any measureable effect on migratory landbirds. Currently, fixed season of use restrictions are implemented in the Burlington Ridge area. Generally, some reduction in motor vehicle noise-related disturbance could potentially occur in the Burlington OHV area by closing roads based on use of soil moisture monitoring design criteria. Roads and trails could potentially be closed prior to December, if soil monitoring indicates wet weather conditions warrant road/trail closure, thereby reducing the amount of vehicle use during December and April, and thereby reducing disturbance to migratory landbirds. The benefit would likely be limited in scope, depending on annual weather conditions. There would be no indirect effect or changes and alteration of migratory landbird habitat.

#### ***Non-Native Invasive Species: Direct and Indirect Effects***

The Tahoe NF GIS data shows that scotch broom and several other non-native invasive species (NNIP) are located along some roads and trails in the Burlington Area. However, NNIP have not been thoroughly mapped on the Tahoe NF, so NNIP species could be present along other roads or trails in this project.

Changing the method of managing wet season use for the Burlington area would not affect the spread or extend of NNIP as the seeds are spread during the summer and fall when these roads and trails will continue to be open to motorized use as they have been in the past. Along the roads that will be closed to public use, the change in use is expected to be minimal, so this project is not expected to change the extent or distribution of any NNIP species.

#### ***Sensitive Plants and Fungi: Direct and Indirect Effects***

There is one *Phacelia stebbinsii* occurrence in the project area along the Mosquito Ridge Road. No other Threatened, Endangered or Sensitive plant occurrences are found in the project area footprint. The project area consists of the footprint of National Forest Transportation System Roads and Trails that are proposed for changes according to the proposed action.

#### **ALTERNATIVE 1 - PROPOSED ACTION**

Removing the season of use restriction on the paved Mosquito Ridge Road (96) that is dually designated as a snow trail, is the only proposed activity that would potentially affect *Phacelia stebbinsii*. Since the road is paved no direct or indirect effects are expected to occur from removing the seasonal use restriction to *Phacelia stebbinsii*, since the plants do not occur within the paved footprint of the Mosquito Ridge Road.

#### **ALTERNATIVE 2 - NO ACTION**

There would be no direct or indirect effects to *Phacelia stebbinsii* under the no action alternative, since no changes to the Tahoe NFTS would occur.

## Terrestrial and Aquatic Wildlife: Direct and Indirect Effects

### ALTERNATIVE 1 - PROPOSED ACTION

Table 3.02-1 displays a summary of habitat requirements and potential effects to threatened, endangered, and sensitive (TES) species for the Tahoe NF. Species with a no effect from the proposed project will not be analyzed in detail for the 2017 MVUM Update Project EA, since the species either does not occur within the project area due to the lack of habitat within the project area, the species range or distribution occurs outside of the project area, or the proposed action would not affect the species or its suitable habitat.

Table 3.02-1 Summary of habitat and effects to Threatened, Endangered and Sensitive Species on Tahoe NF

Species	Habitat Description	Project Effects
Valley elderberry long-horn beetle – FLS <sup>1</sup>	Found only in association with blue elderberry and red elderberry ( <i>Sambucus</i> spp.) up to 2,500 feet from Redding south to Bakersfield, and from east to west across the valley.	No effect; suitable habitat not present and/or not affected by project activities.
California red-legged frog - FLS	Use ponds or pools for breeding during the wet season (December through March) and ponds, riparian areas, or other aquatic habitats during the rest of the year. Extant populations occur below 4,000 feet elevation. (Kleeman and Freel 2007).	No effect; known Tahoe NF locations and designated critical habitat are outside of project boundary (PLA-1, Michigan Bluff, NEV-1, Sailor Flat, and YUB-1, Oregon Creek). Potentially suitable stream habitat in the Burlington Ridge area would not be affected by proposed removal of seasonal use restriction due to soil moisture monitoring design criteria.
Sierra Nevada yellow-legged frog - FLS	Found from around 4,500 feet to over 12,000 feet elevation, and inhabit ponds, lakes, and streams of sufficient depth for overwintering. Highly aquatic, utilizing only the immediate bank and emergent rocks and logs.	No effect; proposed removal of seasonal restriction on paved roads would have no effect on species or habitat. Removing seasonal use on the Burlington Ridge area, would not affect a small segment of habitat where the trail crosses potentially suitable habitat (no frogs known) due to soil moisture monitoring to mitigate potential effects to water quality.
Lahontan cutthroat trout - FLS	Tahoe NF recovery populations of LCT occur in one lake and five streams in the Truckee River basin, except for the Macklin Creek site.	No effect; occupied habitat not present in project area.
Western bumblebee – FSS <sup>1</sup>	Wide variety of flowering plants and crops.	No effect; proposed action would not alter or effect habitat.
Bald eagle - FSS	Nesting territories normally associated with lakes, reservoirs, rivers or large streams (Lehman 1979). Bald eagle nests are usually located in uneven-aged (multi-storied) stands with old growth components (Anthony et al. 1982). Most nests in California are located in predominantly coniferous stands.	No effect; known bald eagle territories occur outside of the project area.
California spotted owl - FSS	Various compositions of mixed conifer, ponderosa pine, red fir and montane hardwood forest types with high structural diversity, and dominated by medium (12 to 24 inches) and large (greater than 24 inch) trees and with moderate to high levels of canopy cover.	May affect individuals; not likely to result in a downward trend or lead toward federal listing. Proposed action would not result in changes to habitat and are not expected to result in increased disturbance and/or harassment during the breeding season. Some occasional and localized disturbance may occur during drought years from removal of fixed season of use.

Species	Habitat Description	Project Effects
Great gray owl - FSS	Breed most commonly near montane meadows in mid-elevation conifer forests with dense canopy cover. In recent years, nests found at lower elevations in mixed hardwood-conifer forests. Elevation range approx. 2,297 to 7,874 feet.	No effect; known nest territory/habitat outside the project area.
Northern goshawk - FSS	In the Sierra Nevada goshawks breed from the mixed conifer forests at low elevations up to and including high elevation conifer forests.	May affect individuals not likely to result in downward trend or lead to federal listing; proposed action would not result in changes to habitat or substantial increased disturbance/harassment. Some occasional and localized disturbance may occur during drought years from removal of fixed season of use.
Willow flycatcher - FSS		No effect; occupied not present in the project area.
Greater sandhill crane - FSS	Generally nests in wet meadow, shallow lacustrine, and fresh emergent wetland habitat, with nests constructed of large mounds of water plants over shallow water (Zeiner et al. 1990, California Department of Fish and Game 1994).	No effect; no habitat present in project area.
Fisher - FSS		No effect: the Tahoe NF is outside the known geographic range for this species.
Pacific marten - FSS	Preferred habitat is generally characterized by dense canopy, multi-storied, multi-species late seral coniferous forests with a high number of large (greater than 24 inch dbh) snags and downed logs (Freel 1991).	May affect individuals, would not result in downward trend or lead toward federal listing. Proposed NFTS changes are not likely to disrupt or adversely affect this species. Short segments of routes closed to public motorized travel are expected to reduce overall disturbance at local, site-specific locations.
Sierra Nevada red fox - FSS	Found in red fir, lodgepole, and sub-alpine forests, and in alpine talus, and hunted in open areas, such as above timberline, open grassy parks and meadows, and open forest stands (Schempf and White 1977). Mainly at elevations greater than 7,000 feet, and seldom below 5,000 feet throughout its range; in the northern Sierra Nevada most records occurred between 5,400 and 7,400 feet.	No effect; the Tahoe NF is outside the known geographic range for this species.
Wolverine - FSS	Occurs in a wide variety of alpine, boreal, and arctic habitats (USFWS 2011). Elevational range in the North Coast mountains from 1,600 to 4,800 feet; in the northern Sierra Nevada from 4,300 to 7,300 feet; and in the southern Sierra Nevada from 6,400 to 10,800 feet.	May effect, no trend toward listing—a lone male wolverine is confirmed in Tahoe National Forest generally along the Pacific Crest between Highways 80 and 49. Due to wide-range of species, it is not likely to be regularly present in this project area or affected by proposed NFTS changes.
Pallid bat - FSS	Day roosts commonly found in rock crevices, tree hollows, mines, caves and a variety of man-made structures. Tree roosting has been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and bole cavities in oaks. Night roosts may include open buildings, porches, mines, caves, and under bridges.	No effect; roost sites not affected by project activities and no changes to habitat would occur.
Townsend's big-eared bat - FSS	Well-ventilated, cold caves and mine tunnels as hibernacula. Also, mine tunnels, bridges and old buildings may be utilized as roost sites.	No effect; no roosting habitat present in project area; nearest known colony not affected by proposed activities. No change to foraging habitat would occur.



Species	Habitat Description	Project Effects
Fringed myotis - FSS	Crevice in caves, buildings, mineshafts, cliff faces, trees, and bridges used for maternity and night roosts.	No effect; roosting habitat not affected by project activities and no changes to foraging habitat would occur.
Northwestern pond turtle - FSS	Aquatic habitats including lakes, natural ponds, rivers, oxbows, permanent streams, ephemeral streams, marshes, freshwater and brackish estuaries and vernal pools. Also utilize man-made waterways including drainage ditches, canals, reservoirs, mill ponds, ornamental ponds, stock ponds, abandoned gravel pits, and sewage treatment plants.	No effect; suitable habitat not present in project area.
Foothill yellow-legged frog - FSS	Perennial streams or intermittent streams with perennial pools and ponds below 6,000 feet in elevation on the west slope of the Sierra Nevada.	No effect; proposed removal of seasonal restriction on paved roads would have no effect on species or habitat. Removing seasonal use on the Burlington Ridge area, would not affect species or suitable habitat due to soil moisture monitoring to mitigate potential effects to water quality.
Black juga - FSS	Springs and seeps. As presently understood taxonomically, is restricted to the upper Sacramento system and Pit River system in California. Historically known from the South Yuba drainage.	No effect; species not currently known to occur on the Tahoe NF. Additionally, proposed actions would not affect suitable habitat due to soil moisture monitoring to mitigate potential effects to water quality.
California floater - FSS	Occurs in lakes and slow rivers, generally, on soft substrates (mud-sand), in fairly large streams and lakes, in relatively slow currents. Historically known from Donner Lake. No other locations known from the Tahoe NF.	No effect; suitable habitat not present in the project area.
Great Basin ramshorn snail - FSS	Occurs in larger lakes and slow rivers including larger spring sources and spring-fed creeks. Suitable habitat occurs within slow segments of the Truckee and Little Truckee Rivers and their tributaries.	No effect; suitable habitat not present in the project area.
Lahontan Lake tui chub - FSS	Found in Lake Tahoe and Pyramid Lake (Nevada) which are connected to each other by the Truckee River and in nearby Walker Lake (Nevada). Populations of plankton-feeding chub occurring in Stampede, Boca and Prosser reservoirs may also be Lahontan Lake tui chub due to morphological similarities.	No effect; suitable habitat not present in the project area.
Hardhead - FSS	Hardhead are widely distributed in low to mid-elevation streams in the main Sacramento-San Joaquin drainage as well as the Russian River drainage. Found in the mainstem of the American River.	No effect; suitable habitat not present in the project area.

FLS = Federally Listed Species; FSS = Forest Service Sensitive Species

#### **ALTERNATIVE 1 DIRECT AND INDIRECT EFFECTS COMMON TO ALL SPECIES**

The effects common to all threatened, endangered, and sensitive terrestrial and aquatic species are described for the following proposed activities as follows:

##### ***Remove fixed seasonal closures on specific paved Forest roads.***

**Aquatic species only:** This change in road management is not expected to have any direct or indirect effects to aquatic species habitat including soil or water resources. The paved surface of the road is not subject to soil erosion. Using these roads during dry and wet periods in the fall and spring when there is not sufficient snow for a snow trail is not expected to change soil erosion, runoff of sediment delivery to nearby streams.

***Remove fixed seasonal closure dates for public wheeled motor vehicle travel in the Burlington area. Open and close roads and motorized trails in the Burlington area to public wheeled motor vehicle travel based on factors established in the Burlington OHV Wet Weather Operating Plan.***

**Aquatic species only:** Proposed management requirements would reduce the amount of time these roads and trails are used during wet weather as compared to the current fixed season of use, especially during fall rainstorms. Under these management requirements, motorized vehicle use would primarily occur during dry periods which would reduce road and trail erosion and sediment delivery to aquatic habitat in the headwaters of Deer Creek and Steephollow Creek. Therefore, indirect effects to aquatic species are not expected to occur from the implementation of this activity, including mitigation measures and allowing road use based on soil moisture conditions.

***Close 3.3 miles of 8 road segments dead ending on private lands to public wheeled motor vehicle travel.***

**Terrestrial and aquatic species.** Closing approximately 3.3 miles of road segments dead ending on private lands to public wheeled motor vehicle travel which are not currently accessible for motor vehicle use by the public is simply an administrative action that would have no effect to terrestrial or aquatic species and their habitat. The 3.3 miles of road segments would be available for administrative use. Occasional administrative use would be infrequent and would not likely have any measureable effect to terrestrial or aquatic species due to the limited scope and intensity of use.

***Close 4.6 miles on 8 isolated or floating road segments that cannot currently be reached by authorized public wheeled motor vehicle travel.***

**Terrestrial and aquatic species.** Closing approximately 4.6 miles of isolated, disconnected road segments on NFS lands that cannot currently be legally reached by public wheeled motor vehicle use would potentially reduce disturbance and/or harassment of terrestrial and or aquatic wildlife habitats. The actual on-the-ground benefit of reduced disturbance would depend on the site-specific condition, including length and actual use of the road segments and connected road access. The 4.6 miles of road segments would be open to administrative use, which is expected to be infrequent. In general, any effects to terrestrial and aquatic species from closing these 4.6 miles of isolated, disconnected road segments would likely be beneficial. Occasional administrative use would have minimal or unmeasurable effects to both terrestrial and aquatic species.

#### **ALTERNATIVE 1 DIRECT AND INDIRECT EFFECTS TO SPECIFIC SPECIES**

##### ***California Spotted Owl***

**Remove fixed seasonal closures on specific paved Forest roads.**

- a) *Remove fixed seasonal use restrictions on approximately 0.9 miles of 2 paved Forest roads*

The two paved Forest roads where season of use restrictions would be removed intersects two spotted owl PACs as shown in Table 3.02-2.

Table 3.02-2 Removal of Fixed Seasonal Closure on Paved Roads Intersecting Spotted Owl PACs

PAC ID	Road Name	Road No.	Length in PAC (miles)	Road Distance from Activity Center (nest site/stand) (miles)
PLA0002	Spruce Creek Spur	16-48	0.3	0.5
PLA0026	Mosquito Ridge Road	96	0.7	0.4
<b>Total</b>			<b>1.0</b>	

Removing the season of use restrictions may have a slight potential to increase disturbance to these spotted owls between December 31 to April 1; however, limited studies conducted on road-associated disturbance and spotted owls suggests that road-associated disturbance has not been shown to result in reduction or loss of reproductive success. Both roads are greater than 0.25 mile away from the known nest/roost site of both PACs PLA0002 and PLA0026. Therefore, any disturbance associated with motorized vehicle use on these roads during this period would likely affect foraging owls, but

would not likely affect nesting or roosting owls. The removal of season of use restriction within these PACs would not constitute a substantial adverse effect since reproduction or productivity would not likely be affected, and the activity centers (nest/roost sites) are greater than 0.25 mile away.

*b) Remove fixed seasonal closure dates on approximately 46.6 miles of 4 paved Forest roads that are dually designated as Snow Trails to "open except when managed as a snow trail"*

Table 3.02-3 shows that one spotted owl PAC (NEV0009) intersects with the paved Bowman Road, which is dually designated as a snow trail. Effects would be similar to item a) above: "removing the seasonal restrictions," but these 4 roads would be managed as a snow trail during the winter months. In general, changes to use between the months of December and April are not expected to cause major disruption in behavior or changes to breeding success. Wheeled motorized vehicle use and over-snow vehicle use have no real difference in levels of disturbance to owls so it is not expected that changes to the type of use would not cause substantial disturbance to spotted owls.

Table 3.02-3 Removal of Fixed Seasonal Closure on Paved Roads Dually Designated as Snow Trails Intersecting Spotted Owl PACs

PAC ID	Road Name	Road No.	Length in PAC (miles)	Road Distance from Activity Center (nest site/stand) (miles)
NEV0009	Bowman Road	18	1.6	0.1

**Remove fixed seasonal closure dates for public wheeled motor vehicle travel in the Burlington area. Open and close roads and motorized trails in the Burlington area to public wheeled motor vehicle travel based on factors established in the Burlington OHV Wet Weather Operating Plan.**

Removing the season of use designation is not expected to directly or indirectly affect nesting and/or reproductive efforts of the California spotted owl because the expanded motorized season would likely occur only during drought years when roads are dry enough to be used. Additionally, the expanded use period (December 31 to April 1) would occur primarily outside of the spotted owl breeding season (March 1 to August 15). Spotted owls within close proximity to these routes may experience some minor, incidental, and localized noise disturbance associated with motor vehicle use when owls are present. However, the effects are not expected to be measureable or cause substantial disturbance that would result in nest/site abandonment or significant behavioral modification. Table 3.02-4 shows proposed NFTS routes for removal of season of use designation that intersect or border California spotted owl PACs.

Table 3.02-4 Removal of Fixed Seasonal Closure - Burlington OHV Roads/Trails intersecting or bordering California Spotted Owl PAC

PAC ID	Road/Trail Name	Road/Trail No.	Length in PAC	Road/Trail Distance from Activity Center (nest site/stand) (miles)
NEV0003	Burlington Ridge/Towel Mill Loop	20-12/10E05	0.75	0.20
NEV0015	Deer Creek/Chalk Bluff	32-7/32	0.55	0.60
NEV0016	Excelsior	11E28	1.80	0.04
NEV0017	Clarabeth	20-15	0.17	0.25
NEV0021	Burlington Ridge/Towle Mill Loop	20-12/10E05	0.40	0.40
NEV0024	Burlington Ridge/ Towle Mill Loop/Omega Trails	20-12/20-13/10E05/11E05	4.16	0.20
NEV0034	Clarabeth	20-15	0.40	0.30
NEV0057	Burlington Ridge/Towle Mill/ Towle Mill Loop	20-12/20-12-3/10E05	2.60	0.24

Eight spotted owl PACs) have activity centers (nest site or nest stand) that are located within 0.25 miles of a route proposed for removal of season of use. The close proximity of these routes do not pose a concern to reproductive behavior or success from the proposed changes. As stated above, the proposed changes may result in incidental and minor disturbance to spotted owls.

The proposed changes to season of use designation would not affect or alter the quality or quantity of suitable spotted owl habitat for nesting, roosting, or foraging.

#### **Northern Goshawk**

##### **Remove fixed seasonal closures on specific paved Forest roads.**

- a) *Remove fixed seasonal use restrictions on approximately 0.9 miles of 2 paved Forest roads*
- b) *Remove fixed seasonal closure dates on approximately 46.6 miles of 4 paved Forest roads that are dually designated as Snow Trails to "open except when managed as a snow trail"*

The two paved Forest roads (Bowman Rd. and Mosquito Ridge Rd.) where season of use restrictions would be removed intersects four northern goshawk PACs as shown in Table 3.02-5. Removing the season of use restrictions may have a slight potential to increase disturbance to northern goshawk between December 31 to April 1; however, limited studies conducted on road-associated disturbance and northern goshawk suggests that road-associated disturbance is not likely to appreciably disturb goshawk or adversely affect breeding success. The activity centers (nest/roost site) of two PACs (R05F17D55T21, R05F17D55T30) are greater than 0.25 mile away from the Bowman Road, and therefore would not contribute to increased disturbance to breeding activities from motorized use. Activity centers for two other PACs (R05F17D54T04, R05F17D55T11) could potentially experience increased disturbance from motorized wheeled use at the initiation of the breeding season since they are approximately 0.1 mile from the Bowman and Mosquito Ridge Roads. However, limited studies on road-associated disturbance has not been shown to result in reduction or loss of reproductive success. Therefore, any disturbance associated with motorized vehicle use on these roads during this period would likely affect foraging goshawk, but would not likely reduce or result in loss of goshawk reproductive success.

Table 3.02-5 Removal of Fixed Seasonal Closure on Paved Roads Intersecting Goshawk PACs

<b>Goshawk PAC ID</b>	<b>Road Name</b>	<b>Road Number</b>	<b>Road Length in PAC (miles)</b>	<b>Road Distance to Activity Center (nest/nest stand)(miles)</b>
R05F17D54T04	Mosquito Ridge	96	0.9	0.1
R05F17D55T11	Bowman	18	1.25	0.1
R05F17D55T21	Bowman	18	0.1	0.5
R05F17D55T30	Bowman	18	0.3	0.4

**Remove fixed seasonal closure dates for public wheeled motor vehicle travel in the Burlington area. Open and close roads and motorized trails in the Burlington area to public wheeled motor vehicle travel based on factors established in the Burlington OHV Wet Weather Operating Plan.**

Two goshawk PACs would be potentially affected by removing fixed season of use in the Burlington OHV system as shown in Table 3.02-6. The actual effects of removing the season of use would potentially allow increased use between December 31 and April 1, where there is a slight potential that motorized wheeled use in the early part of the breeding season could cause disturbance. However, the Alpha Road is 0.8 mile from the known nest site and would not be affected by road use. The Towle Mill road is within 0.1 mile of the known nest site for PAC D55T33. Effects of motorized use in the Burlington area is likely to be negligible to goshawks including goshawk PAC D55T33 because logging truck noise had no effect on northern goshawks nesting along level 3, improved gravel roads on the Kaibab Plateau (Grubb et al. 2013). Grubb et al. (2013) suggested that restriction of log hauling and other road-based travel activities on similar roads within post-fledging family areas (PFAs) and nest sites appears unnecessary based on their experiments.

Table 3.02-6 Removal of Fixed Seasonal Closure - Burlington OHV Roads/Trails intersecting or bordering Goshawk PACs

Goshawk PAC ID	Road Name	Road Number	Road Length in PAC (miles)	Road Distance to Activity Center (nest/nest stand)(miles)
D55T23	Alpha	29-2	0.2	0.8
D55T33	Towle Mill	20-12-3	0.3	0.1

***Pacific marten***

Activities related to Alternative 1, the proposed action, has a slight potential to disrupt marten activity. In general, the proposed activities (i.e. removal of fixed seasonal restrictions) associated with Alternative 1 are not likely to result in changes to marten abundance, although one study in Ontario suggests that marten activity was greater further away from roads, but that martens were as likely to be detected near roads as they were away from roads. The majority of studies conducted on road-related effects to marten concluded that roads do not appear to affect marten presence or abundance. In particular, two study sites in California (Lake Tahoe Basin Management unit and Sierra National Forest), Zielinski et al. 2008 found that off-highway vehicle and over-the-snow vehicle use (at least up to 1 vehicle per 2-hour time period) had no effect to marten occurrence, circadian activity, or sex ratio. Therefore, although the proposed action may affect marten behavior and activity level within close proximity to roads/trails proposed for removal of fixed season of use, including on 2 paved roads and in the Burlington area, it is not likely that the proposed action would have any overall adverse effects to marten presence or abundance. Furthermore, the Burlington area is at the lower limit of marten's elevation range (greater than 5,000 feet elevation), and therefore would not affect the vast majority of martens within the Tahoe NF. Slight, localized disturbance from removing the season of use restrictions would likely be minimal and inconsequential to marten behavior and activity. The proposed action would not alter changes in marten habitat or result in increased habitat fragmentation.

***Wolverine***

In general, it is not expected that proposed activities under Alternative 1, including removal of fixed season of use would have any substantial or measurable effects to the wolverine, since the wolverine has a very large home range, and studies on road-related effects to the wolverine are either inclusive or suggest that wolverines tend to inhabit areas that are less roaded and tend to occur at remote locations in higher elevation environments (i.e. unroaded areas and wilderness), particularly during the winter months between December 31 through April 1, when the fixed season of use could potentially be removed.

**ALTERNATIVE 2 DIRECT AND INDIRECT EFFECTS TO SPECIFIC SPECIES**

Alternative 2 is the no action alternative. Therefore, Alternative 2 would not affect the California spotted owl, northern goshawk, marten, or wolverine directly or indirectly.

**2. The degree to which the proposed action affects public health or safety.**

Forest Service road, trail and areas are designed to allow motorized use in a safe manner. Chief safety concerns include conflicts between passenger cars and non-highway legal vehicle and conflicts between licensed highway drivers and on roads maintained for passenger cars under the Highway Safety Act (FEIS Chapter 3.08, Appendix J) (USDA FS 2010).

Under the Proposed Action additional periods of time would be available for motor vehicle opportunities when resource conditions allow. Safety is one of the considered criteria in determining if a road, trail or area should be closed within the season of use. By allowing motorized use during a potentially extended time period, additional conflicts beyond those accepted under the MTM ROD (USDA FS 2010) would not occur. Public safety would not be affected by closing road segments.

**3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.**

The project does not propose additional roads, trails or areas near prime farmlands, wetlands, parklands, wild and scenic rivers or known ecologically critical areas. There may be some additional use of existing roads, trails and areas that have already been deemed appropriate in these areas. There are known cultural resources within the project area; however, use of existing roads and trails has no or little potential to cause effects to historic properties.

**4. The degree to which the effects on the human environment are likely to be highly controversial.**

Scoping surfaced no scientific controversy regarding the magnitude or nature of effects of altering seasonal closures during times of no resource impacts, to close road segments dead ending on private lands and of closing isolated road segments. Scoping did reveal that it would be beneficial to have flexibility while protecting the road and natural resources. This project's purpose and need is to improve opportunities for public wheeled motorized travel when conditions provide for the protection of natural resources, to ensure that roads can be legally reached by the motoring public, and to mitigate trespass onto private lands.

**5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.**

The project proposes use of NFTS roads, trails and areas under similar circumstances to use during other times of the year and under circumstances where motorized vehicle use has been successfully allowed for many years. Additionally this Proposed Action serves as an alternative mechanism of achieving the goals of the MTM ROD (USDA FS 2010) while allowing the Forest flexibility due to year-to-year weather variations. Closing roads dead ending on private lands would reduce the chances of the public trespassing on private lands involved; thus reducing the potential for conflict between motor vehicle operators, recreationists and landowners. Closing isolated road segments to public wheeled motorized vehicle travel would not affect opportunities for motor vehicle or non-motorized recreation activities. The nature and magnitude of the effects to the human environment from implementing the Proposed Action are well understood and do not pose highly uncertain, unique or unknown risks.

**6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.**

The use of NFTS roads, trails and areas during dry periods under the project has been occurring within similar landscapes and vegetation types. This use and the project objectives, are envisioned by the goals of the LRMP as amended and are consistent with applicable standards and guides, as previously described. As previously mentioned this Proposed Action serves as an alternative mechanism of achieving the goals of the MTM ROD (USDA FS 2010) while allowing the Forest flexibility due to year-to-year weather variations. Therefore the precedent for the Proposed Action is already well established, and would not represent a decision in principle about future considerations.

Regarding the potential for significant effects, the TNF has allowed motor vehicle use for many years and is mindful to minimize resource damage complying with Subpart B of the Travel Management Rule. Motor vehicle use on NFTS roads and trails during dry weather has been accomplished without producing significant effects. This Project has been designed with measures to prevent precipitation related effects from occurring. Based upon the analysis of the Proposed Action, as documented in this

EA, the project activities should not result in significant effects.

**7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by breaking it down into small component parts.**

As this Proposed Action is an alternative mechanism of achieving the same effect as was analyzed in the MTM FEIS (USDA FS 2010) that document is adopted by reference and the effects of that document are summarized below for key resources. This factor contains specific information about the cumulative effects of resources that may potentially be affected by the Proposed Action: cultural resources, recreation, traffic, visual resources, watershed, and terrestrial and aquatic wildlife species. Past, on-going and foreseeable future events in the project area include forest stand thinning, fuel reduction projects; fire suppression; and recreational uses such as camping, hiking, mountain biking, and boating among others.

***Cultural Resources: Cumulative Effects***

Past events, both natural and human caused, have had varying levels of cumulative effects on the archaeological resources in the project area. These effects, ranging from moderate to extensive, have resulted from logging, road construction, wildfires, erosion, and exposure to the elements. No predicted future management activities will affect heritage resources.

***Recreation: Cumulative Effects***

It is anticipated that the effects of present and reasonably foreseeable future actions would meet ROS classifications for the management area in which they occur. The past activities, including the existing NFTS, have shaped the recreation opportunities and ROS settings available on the Forest.

**ALTERNATIVE 1 - PROPOSED ACTION**

Alternative 1 would change the way TNF implements seasonal use restrictions on certain NFTS routes. It is anticipated that remote sensing technology measuring soil moisture levels will continue to evolve and the pilot program started in the Burlington area will spread to other areas of the forest allowing managers to better protect NFTS road and trail resources from erosion and rutting. Forest users would be provided improved opportunities to access the TNF for non-motorized recreation and motor vehicle based activities during times of drought and/or limited winter snowfall. Closing NFTS routes to public wheeled motor vehicle travel identified in this action would have little to no cumulative effects on recreation use patterns across the forest.

**ALTERNATIVE 2 - NO ACTION**

Under Alternative 2, existing conditions would remain unchanged in the future. Recreationists in motor vehicles using the NFTS to access opportunities across the TNF would be subject to the vagaries of the fixed seasonal closures on the NFTS.

NFTS routes would be closed to motor vehicles regardless of the actual conditions on the ground. In times of drought or little winter precipitation, most of the forest would be inaccessible to recreationists due to motor vehicle restrictions. Despite the seasonal closures, recreationists would likely continue to access the forest in violation of the seasonal closure restrictions.

During unrestricted motor vehicle use seasons in fall and spring months, users legally accessing the forest could cause damage to NFTS routes and adjacent resources during periods of wet weather and poor road and trail conditions. The cumulative effect of this would be increasing rutting, drainage and erosion problems that would continue to degrade NFTS resources in the future.

### ***Transportation: Cumulative Effects***

Since the actions proposed in this EA would maintain and improve public safety, and since closing the roads to the public would not affect public safety, there are no cumulative effects to public safety.

Because actions would not increase maintenance requirements or costs on these roads for the removing the fixed seasonal closures and because costs would minimally be reduced with the short trail conversion, there are no cumulative effects on affordability.

### ***Visual Resources: Cumulative Effects***

Because there are no direct or indirect effects on scenery, the proposed action would result in no cumulative effects to visual resources.

### ***Watershed Resources: Cumulative Effects***

The minor changes in the road system resulting from closing the road segments from public wheeled motor vehicle travel would have negligible effects. This change does not measurably alter the use or amount of roads on the road system. As stated above, changing the season of use on paved roads would have no soil or water resource effects. The only component of the Proposed Action that may have measureable effects would be from removing the fixed season of use for the Burlington OHV Trail System and associated Burlington area roads and managing them using the soil moisture system.

These effects would be cumulative with the other sediment sources in these two watersheds in the headwaters of both Deer and Steephollow Creek. In the headwaters of Deer Creek there are 59 miles of road and a road density of 5.4 miles per square mile. In the headwaters of Steephollow Creek there are 41 miles of road with a road density of 5.3 miles per square mile (GIS data for Subpart A Transportation Analysis, 2015). However, with the high density of roads and likely many additional unauthorized roads in these watersheds, the slight reduction of sediment transported during rain events from the proposed action would be negligible considering the total amount of roads in these watersheds.

This project is designed to either have neutral or positive effects on water quality through improved wet weather road and trail management. The Management Measures are the site specific BMPs designed to meet the Clean Water Act through complying with the water quality plans set forth by The California Regional Water Quality Control Boards (CRWQCB, 2016, CRWQCBLR, 2000). As a result of this design, this project complies with the Clean Water Act, the Tahoe NF LRMP and the Sierra Nevada Forest Plan Amendment (SNFPA) Record of Decision (USDA, 2004).

### ***Management Indicator Species: Cumulative Effects***

Because there are no indirect effects on management indicator species habitats, the proposed action would not add or contribute to existing cumulative effects to management indicator species.

### ***Migratory Landbirds: Cumulative Effects***

Because there are no indirect effects on migratory landbird habitats, the proposed action would not add or contribute to existing cumulative effects to migratory landbirds.

### ***Non-Native Invasive Species: Cumulative Effects***

Because there are no indirect effects on non-native invasive species, the proposed action would not add or contribute to existing cumulative effects.



### ***Sensitive Plants and Fungi: Cumulative Effects***

Since the road is paved no cumulative effects are expected to occur from removing the seasonal use restriction to *Phacelia stebbinsii*, since the plants do not occur within the paved footprint of the Mosquito Ridge Road.

### **ALTERNATIVE 2 - NO ACTION**

There would be no cumulative effects to *Phacelia stebbinsii* under the no action alternative, since no physical changes to the Tahoe NFTS would occur.

### ***Terrestrial and Aquatic Wildlife: Cumulative Effects***

#### **CALIFORNIA SPOTTED OWL**

##### ***Alternative 1***

Since the proposed action does not alter or change that quality or quantity of suitable spotted owl habitat, there would be no cumulative effects to the California spotted owl from the implementation of this project.

##### ***Alternative 2***

Alternative 2 is the no action alternative. Therefore, Alternative 2 would not affect the California spotted owl cumulatively.

##### ***California Spotted Owl: Conclusion and Determination***

It is my determination that implementation of Alternative 1 may affect individuals, but is not likely to result in a trend toward Federal listing or loss of viability for the California spotted owl within the planning area of the Tahoe National Forest. In the absence of a range wide viability assessment, this viability determination is based on local knowledge of the California spotted owl as discussed previously in this evaluation, and professional judgment.

#### **NORTHERN GOSHAWK**

##### ***Alternative 1***

Since the proposed action does not alter or change the quality or quantity of suitable northern goshawk habitat, there would be no cumulative effects to the northern goshawk from the implementation of this project.

##### ***Alternative 2***

Alternative 2 is the no action alternative. Therefore, Alternative 2 would not affect the northern goshawk cumulatively.

##### ***Northern Goshawk: Conclusion and Determination***

It is my determination that implementation of Alternative 1 may affect individuals, but is not likely to result in a trend toward Federal listing or loss of viability for the northern goshawk within the planning area of the Tahoe National Forest. In the absence of a range wide viability assessment, this viability determination is based on local knowledge of the northern goshawk as discussed previously in this evaluation, and professional judgment.

#### **PACIFIC MARTEN**

##### ***Alternative 1***

Since no habitat changes would occur with Alternative 1, there would be no cumulative effects to Pacific marten.

### **Alternative 2**

Alternative 2 is the no action alternative. Therefore, Alternative 2 would not affect the Pacific marten cumulatively.

#### ***Pacific Marten: Conclusion and Determination***

It is my determination that implementation of Alternative 1 may affect individuals, but is not likely to result in a trend toward Federal listing or loss of viability for the Pacific marten within the planning area of the Tahoe National Forest. In the absence of a range wide viability assessment, this viability determination is based on local knowledge of the Pacific marten as discussed previously in this evaluation, and professional judgment.

### **WOLVERINE**

#### **Alternative 1**

The proposed action would not alter or change the quantity or quality of wolverine habitat or result in increased habitat fragmentation. Since no habitat changes would occur, there would be no indirect effects that would be added to existing cumulative effects from the proposed action for the wolverine.

#### **Alternative 2**

Alternative 2 is the no action alternative. Therefore, Alternative 2 would not affect the California wolverine cumulatively.

#### ***Wolverine: Conclusion and Determination***

It is my determination that implementation of Alternative 1 may affect individuals, but is not likely to result in a trend toward Federal listing or loss of viability for the California wolverine within the planning area of the Tahoe National Forest. In the absence of a range wide viability assessment, this viability determination is based on local knowledge of the wolverine as discussed previously in this evaluation, and professional judgment.

## **8. The degree to which the action may adversely affect districts, sites, highways, structures or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources.**

The motor vehicle use of NFTS road and trails for a shortened or an extended timeframe would not have different effects than usage of the roads and trails during other timeframes... Use of these existing roads and trails has not or little potential to cause effects to historic properties. Closing the road segments dead ending on private lands might have a negligible beneficial effect as less area would be accessible by the public. Closing the isolated road segments would have no effect as those segments were not previously available for public motor vehicle travel.

This proposed undertaking complies with the provisions set forth within the *Programmatic Agreement Among the U.S.D.A. Forest Service, Pacific Southwest Region (Region 5), California State Historic Preservation Officer, Nevada State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding The Process for Compliance With Section 106 of The National Historic Preservation Act for Management of Historic Properties by the National Forests of the Pacific Southwest Region* (Regional PA 2013). This PA is the Pacific Southwest Region's alternative procedure to implement Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, (16 USC 470), and it's implementing regulations 36 CFR 800 and Forest Service Manual 2360.

The Regional PA includes certain classes of Forest Service specific undertakings may be treated as Screened Undertakings under the PA. Screened Undertakings have no or little potential to cause

effects to historic properties if they are present in an APE. Undertakings can include activities confined within previously disturbed areas (such as road prisms). These classes of undertakings are outlined in Appendix D of the Regional PA (2013). This undertaking meets the criteria of a screened undertaking.

### **9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.**

As discussed under item 1 above, the Proposed Action would:

- Have no effect on Valley elderberry longhorn beetle since suitable habitat is not present and/or not affected by project activities.
- Have no effect on the California red-legged frog since known Tahoe NF locations and designated critical habitat are outside of project boundary (PLA-1, Michigan Bluff, NEV-1, Sailor Flat, and YUB-1, Oregon Creek). Potentially suitable stream habitat in the Burlington Ridge area would not be affected by proposed removal of seasonal use restriction due to soil moisture monitoring design criteria.
- Have no effect on the Sierra Nevada yellow-legged frog since proposed removal of seasonal restriction on paved roads would have no effect on species or habitat. Removing seasonal use on the Burlington Ridge area, would not affect a small segment of habitat where the trail crosses potentially suitable habitat (no frogs known) due to soil moisture monitoring to mitigate potential effects to water quality.
- Have no effect on the Lahontan cutthroat trout since occupied habitat is not present in project area.

Therefore this Project would not adversely affect an endangered or threatened species or its habitat.

### **10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.**

None of the proposed activities under the Proposed Action would threaten violation of applicable Federal, State or local environmental protection laws or requirements.

Management measures are set in place to protect soils, water and other resources and people throughout the project area. These requirements assure that all the activities in the Proposed Action are consistent with the LRMP, as amended by following the standards and guidelines during project implementation.

Activities associated with the alternatives will comply with the National Historic Preservation Act (NHPA) of 1966, as amended and it's implementing regulations 36 CFR 800. This proposed undertaking complies with the provisions set forth within the Regional PA 2013.

The FSM provides additional National Forest Management Act management direction, regarding species viability. FSM 2670.32 (FS 2005) provides direction to avoid or minimize impacts to species whose viability has been identified as a concern. This includes federally-listed threatened or endangered species, and Forest Service sensitive species. Effects on threatened and endangered species and critical habitat are noted in the discussion of effects in numbers 1 and 9. The analysis determined that the action alternative would have little to no effect on Forest Service sensitive species, because there would be little to no impact to habitat.

This project is designed to either have neutral or positive effects on water quality through improved wet weather road and trail management. The management measures are the site specific BMPs designed to meet the Clean Water Act through complying with the water quality plans set forth by the California Regional Water Quality Control Boards (CRWQCB, 2016, CRWQCB LR, 2000). As a

result of this design, this project complies with the Clean Water Act, the Tahoe NF LRMP and the Sierra Nevada Forest Plan Amendment (SNFPA) Record of Decision (USDA, 2004).

## **4. Consultation and Coordination**

The Forest Service consulted the following Tribes, individuals, and organizations during the development of this environmental assessment:

### **Tribes**

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Gene Whitehouse, Tribal Chairperson, United Auburn Indian Community of the Auburn Rancheria

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### **Non-Forest Service Organizations**

AMA Off-Road Congressman, Dave Pickett  
AMA Western Representative, Nick Harris  
American Motorcyclist Association, Jerry Fouts, D-36 President  
American River Conservancy  
Blue Ribbon Coalition, Inc., Don Amador, Western Rep  
CA Association of 4 Wheel Drive Clubs, Don Spuhler  
California Enduro Riders Association, Charlie Hirst  
California Trail Users Coalition  
Diablo 4 Wheelers  
Foresthill Four-Wheelers  
Friends of Foresthill OHV Trails, John Gilmore  
Friends of Greenhorn, Jacquelyne 'Bebe' Theisen  
Friends of Tahoe Forest Access, Martin J. Ward  
Garrahan Off-Road Racing  
Ghost Riders MC  
Graeagle Land and Water Co  
Grass Valley 4 Wheelers, Nancy Troutner  
Hayward Motorcycle Club  
High Sierra Motorcycle Club, Wade Tuma  
James O Wunschel  
Merced Dirt Riders, Mike Demaso, President  
Nevada County Woods Riders, Frank Brown  
NorCal Motorcycle Club  
Public Employees for Environmental Responsibility, Karen Schambach  
Redding Dirt Riders  
Salinas Ramblers Motorcycle Club

San Juan Unified School District  
Sierra Club and FIG, Barbara and Donald Rivenes  
Sierra Foothills Audubon Society, Rudy Darling  
Sierra Pacific Industries  
Tahoe Donner Four Wheelers  
The Wilderness Society, Stan Van Velsor  
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## **5. References**

California Regional Water Quality Control Board, 2000. The water quality control plan for the Lahontan Region. South Lake Tahoe, CA.

California Regional Water Quality Control Board, 2016. The water quality control plan for the Sacramento and San Joaquin River Basins. Central Valley Region. Rancho Cordova, CA.

Freel, M. 1991. A literature review for management of fisher and marten in California. Unpubl. Document, USDA Forest Service, Pacific Southwest Region.

MacDonald, L.H., and D.B.R. Coe, 2008. Road sediment production and delivery: processes and management. In Proceedings of the First World Landslide Forum, United Nations University, Tokyo, Japan. International Consortium on Landslides, Japan, pp. 385-388.

Poff, Roger, 2010. Wet Weather Management of OHV Trails on National Forests in California.

SDTDC, 2010. Monitoring Soil Conditions in OHV Parks. San Dimas Technology and Development Center.

Schempf, P. F. and M. White. 1977. Status of six furbearer populations in the mountains of northern California. USDA Forest Service, California Region. 51 pp.

USDA Forest Service, 1990. Tahoe National Forest Land and Resources Management Plan. U.S. Department of Agriculture, Forest Service, Pacific Southwest Region, Grass Valley, CA.

USDA Forest Service, 2004. Sierra Nevada Forest Plan Amendment: Final Supplemental Environmental Impact Statement, Vols. 1-2 and Record of Decision. U.S. Department of Agriculture, Forest Service, Pacific Southwest Region, Vallejo, CA.

- USDA Forest Service, 2007. Sierra Nevada Forests Management Indicator Species (SNF MIS) Amendment. U.S. Department of Agriculture, Forest Service, Pacific Southwest Region, Vallejo, CA.
- USDA Forest Service, 2010. Motorized Travel Management Project Environmental Impact Statement and Record of Decision (ROD). U.S. Department of Agriculture, Forest Service, Region 5, Vallejo, CA.
- USDA Forest Service. 2015. Tahoe National Forest Subpart A Travel Analysis. On file, Tahoe National Forest, Nevada City, CA.
- Zielinski, W. J., K. M. Slauson, and A. E. Bowles. 2008. Effects of off-highway vehicle use on the American marten. *Journal of Wildlife Management* 72(7):1558-1571.
- Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer and M. White. 1990. California Wildlife: Volume III: Mammals. California Dept. of Fish and Game, Sacramento CA. 407 pp.